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BOMBAY BRANCH
OF THE
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TRAVELS,

OR

OBSERVATIONS

RELATING TO

SEVERAL PARTS

OF

BARBARY and the *LEVANT.*

ILLUSTRATED with CUTS.

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The SECOND EDITION, with great IMPROVEMENTS.

By THOMAS SHAW, D.D. F.R.S.
Regius Profeſſor of Greek, and Principal of St. EDMUND HALL,
in the Univerſity of OXFORD.

LONDON,
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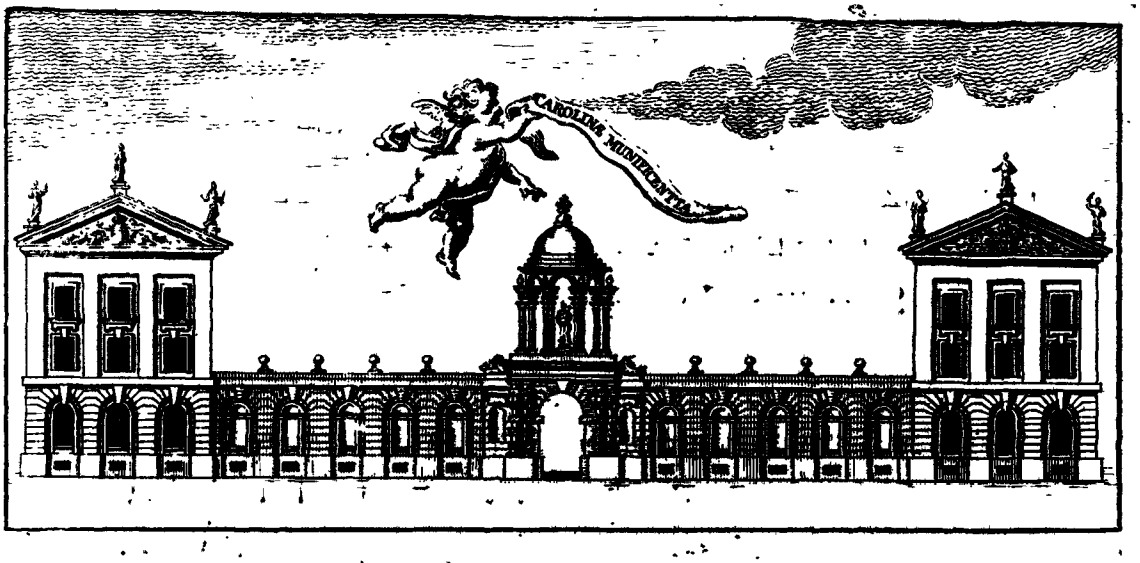

TO THE KING.

Moſt Gracious Sovereign,

I BEG leave to approach *Your Royal Perſon*, with an humble preſent in my hand, after the faſhion of thoſe countries, where I have long reſided.

It is a volume of *Travels and Obſervations*; wherein are deſcribed the ſituation, polity, and cuſtoms of various

ous nations; — nations unacquainted with liberty, and whoſe government is the very reverſe of *Your Majeſty's* wiſe and gracious adminiſtration.

I had an oppportunity of making *Theſe Obſervations*, whilſt I had the honour of being *Your Majeſty's* chaplain at *Algiers*. It was in this ſituation, that I firſt collected materials for the following ſheets; and ſo extenſive is *Your Majeſty's* influence, that it procured me ſafety and protection, even in countries remote and barbarous.

A Work, which owes its riſe, its progreſs, and completion to theſe aſſiſtances, ſeems in ſome degree entitled to *Your Royal Favour*, and is therefore with all humility preſented to *Your Sacred Majeſty*.

Whilſt I was engaged in this undertaking, it was a pleaſing encouragement to conſider, that my well-intended labours were approved by *Her Late Majeſty*; and it did not a little inflame my endeavours, when *She* was pleaſed to promiſe me the honour of *Her Royal Patronage*.

But I muſt not preſume to mention private and perſonal favours, when *Whole Societies* are indebted to *That Illuſtrious Princeſs*. Particularly, *That Antient Houſe of Learning* (of which I have the happineſs to be a member) ſtands diſtinguiſhed by *Her Royal Bounty*, and owes its beauty and ornament to *Her Munificence*.

If

If Heaven had ſpared that invaluable life, with what zeal ſhould we have paid repeated acknowledgments to our *Royal Benefactreſs!* But now——We can only join with thouſands in lamenting the *Publick Loſs*, and with gratitude tranſmit *Her Memory* to our lateſt Succeſſors.

That providence may long preſerve *Your Majeſty*, and continue the many bleſſings of *Your Reign* to this church and nation, is the conſtant prayer of,

May it pleaſe Your MAJESTY,

Your MAJESTY'S

Moſt Humble

and Moſt Devoted

Servant and Subject,

April 25, 1738.

THOMAS SHAW.

EPITAPHIUM AUCTORIS.

Peregrinationibus variis
Per *Europam*, *Africam*, *Aſiamque*
Feliciter abſolutis,
Et Exuviis mortalibus hic loci
Tandem depoſitis,
Cœleſtem in Patriam remigravit
THOMAS SHAW, *S. T. P.* et *R. S. S.*
Gabrielis Fil. *Kendalienſis*:
Qui
Conſulibus Anglicis apud *Algerenſes*
Primum erat a Sacris;
Mox *Coll. Reginæ* inter Socios aſcriptus;
Aulæ dein *Sancti Edmundi* Principalis,
Ac ejuſdem munificus Inſtaurator;
Linguæ demum *Græcæ* apud *Oxonienſes*
Profeſſor Regius.
De Literis quantum meruit Auctor celebratus,
Edita uſque teſtabuntur Opera,
Pyramidibus ipſis, quas penitiùs inſpexerat,
Perenniora forſan extitura.

Hic, Studiis etſi ſeverioribus
Indies occupatus,
Horis tamen ſubſecivis emicuit
Eruditus idem et facetus conviva.

Optima quanquam Mentis indole
Et multiplici Scientia inſtructus;
Literatorum omnium, domi foriſque,
Suffragiis comprobatus;
Magnatum Procerumque popularium
Familiari inſignitus Notitiâ;
Nec ſummis in Eccleſiâ Dignitatibus impar;
Fato tamen iniquo evenit,
Ut *Bramleyenſis* obiret *Paræciæ*
Vicarius penè Sexagenarius
XVIII. Cal. Sept. A. D. 1751.

Uxor JOANNA, Ed. *Holden* Arm. Conſulis
Algerenſis olim Conjux, bis Vidua,
M. P.

PREFACE.

PREVIOUS to the prefatory diſcourſe, it may be proper to obſerve wherein this *ſecond edition* of *The book of travels and obſervations* differs from the *firſt*. Firſt of all then, it is printed with ſmaller types, and confined to a ſmaller volume, to be at once more portable and leſs expenſive. In the next place, ſeveral lines and pages, which might be looked upon as ſuperfluous or unneceſſary, are here omitted; ſuch as the *Excerpta* (as they were called) together with ſeveral of the larger notes and quotations from ancient authors; the references themſelves being only here retained. Some paragraphs likewiſe have been omitted or abridged in the work itſelf, *viz.* ſeveral of the geographical obſervations in the kingdoms of *Algiers* and *Tunis*; particularly where neither ancient nor modern hiſtory were more immediately concerned; and where the general ſcheme of theſe geographical enquiries would admit of it. And leſt the greater proficients in botanical learning ſhould regard the *Phytographia*, or hiſtory of plants, as more copious than curious, the author has continued ſuch of them only as are the moſt rare, or which have not been hitherto deſcribed. Yet ſuch caution has been every where taken in theſe, and in a few other omiſſions and abridgments of leſs account, that little or nothing material or properly eſſential to the work itſelf, ſhould be wanting to this ſecond edition.

Yet what has been thus omitted or abridged, has made room not only for the ſeveral additional diſcourſes and diſſertations, that were contained in the ſupplement lately publiſhed to this book; but for a variety alſo of new remarks and obſervations, which were either overlooked in the author's journals and memoirs, or which have occurred to his memory upon the reviſal of them *both*. And as errors and miſtakes were almoſt unavoidable in a work of this copious nature and ſubject (ſeveral ſheets whereof, through the great importu-

nity and impatience of the ſubſcribers, might have been too haſtily printed off) theſe, whether they regard the preſs, or ſome geographical or hiſtorical facts; or whether they relate to numbers or meaſures, or the reaſonings thereupon; as they are, when taken all together, very few and ſeldom of any conſequence; ſo they have, all along, according to their nature and import, and as far as they came to the author's knowledge, been either rectified, altered, or intirely left out. Beſides, that order, method, and connection ſhould be the better preſerved throughout the whole, the particular paragraphs have been ſometimes tranſpoſed, and the general chapters have been ſubdivided into ſections; whilſt the ſtyle itſelf, which might frequently appear too copious and redundant, like thoſe foreign languages which were familiar to the author, during his long abſence from his native country, is here, more agreeable to the *Engliſh* diction at preſent, rendered more terſe and conciſe.

The following pages therefore, with theſe additions, alterations, and improvements, are preſented to the reader as an *eſſay* towards reſtoring the *ancient geography*, and placing in a proper light *the natural* and ſometimes *civil hiſtory* of thoſe countries, where the author has travelled. In purſuance of which deſign, *theſe obſervations*, of what kind ſoever, whether they regard *geography*, *natural hiſtory*, or other *miſcellaneous ſubjects*, are not blended or mixed together as they chanced to fall in his way; but are ranged under diſtinct heads and diviſions, without repeating, upon every occaſion, the time, the place, or manner, wherein they were made.

The repetition of every day's events and occurrences, beſides being frequently tedious, and ſeldom of any importance, could not have been admitted in the following ſheets without augmenting them to twice their number. Whereas the author's principal deſign and intent being in a literary way, and with as much brevity as the ſubject would admit of, not barely to amuſe and divert, but to inform and inſtruct the curious reader, to whom alone theſe pages were addreſſed; he has therefore confined himſelf all along, to lay down ſuch *obſervations* only as he judged were of greater moment and conſequence; ſuch likewiſe as were altogether new, or not ſufficiently explained in other books of *travels*. And as the greateſt part

of theſe *obſervations* bear a near relation to ſeveral paſſages, cuſtoms, or expreſſions in the *claſſic writers*, and eſpecially in the *Scriptures*, the author has further endeavoured, by comparing thoſe *ancient* accounts and deſcriptions with theſe his *later* diſcoveries, to make them receive *from*, and give *to*, each other mutual light and illuſtration.

However, as the method of travelling or ſurveying theſe countries; the diet and reception of the traveller; the hardſhips and dangers to which he is expoſed; the other incidents of the like nature, may be looked upon by ſome readers as matters of too great curioſity to be intirely paſſed over and neglected, the author propoſes to ſupply what may be wanting upon that ſubject, by placing here, in one view, ſuch of the moſt remarkable circumſtances and occurrences as made up the *diary-part* of *his travels*.

Prefatory diſcourſe.

THE reader therefore is firſt of all to be informed, that in the ſeveral maritime towns of *Barbary* and the *Levant*, where the *Britiſh factories* are eſtabliſhed, the author was entertained with extraordinary marks of generoſity and friendſhip; having the uſe not only of their houſes, but of their horſes alſo, their *janiſſaries* and ſervants. But in moſt of the inland towns and villages, particularly of *Barbary*, there is a houſe ſet apart for the reception of ſtrangers; with a proper officer, called *maharak*, to attend us; where we are lodged and entertained for one night at the expence of the community. Yet even here we ſometimes met with our difficulties and diſappointments; as when theſe houſes are already taken up; or when the *maharak* was not to be found; or when he was inclined to be ſurly and diſobliging; great diſputes, and *ſhamatan*, as they call brawls and diſcord, happening at ſuch times. And as there were no *inns* or *public houſes* to entertain us, and private families (contrary to the charitable cuſtom recorded in *Job* xxxi. 32. and *Matth.* xxv. 35.) would never admit us; we had now and then occaſion enough to meditate upon the ſame diſtreſs with the *Levite and his company* (Judg. xix. 15.) when *there was no man that would take them into his houſe for lodging:* and of the propriety there was to place (1 *Tim.* v. 10. *Heb.* xiii. 2.) the lodging and entertaining of ſtrangers among good works.

But when we travel in the open country, at a diſtance from theſe towns and villages, as in *Arabia* and the greateſt part of *Barbary*, we are to take our chance, both with regard to our food and our lodgings; as will be hereafter more particularly related. As to our food, we were ſometimes provident enough to take care of it, eſpecially in *Arabia*. But to have furniſhed ourſelves with tents in travelling through thoſe deſerts, would have been both cumberſome and expenſive; beſides the ſuſpicion it might have raiſed in the jealous *Arabs*, that the perſons they belonged to, were of a more than ordinary rank and condition, and conſequently would be too rich and tempting a booty to be ſuffered to eſcape. The unfortunate gentlemen, who were concerned not many years ago in an embaſſy to *Abyſſinia*, by order of the *French* king, found this to be too true, at the expence of their lives.

As we ſhall have frequent occaſion, particularly in the deſcription of *Barbary*, to mention the *Kabyles*, the *Arabs*, and the *Moors*, it will be neceſſary to premiſe, that the *Kabyles* have generally the appellation of *Beni*, as the *Arabs* have that of *Welled*, prefixed to the name of their reſpective founders. Both words have the ſame ſignification, and denote the children or offſpring of ſuch a tribe; thus *Beni Raſhid* and *Welled Halfa* equally ſignify the ſons of *Raſhid* and the ſons of *Halfa*: or the *Raſhides* or *Halfides*, as the ancient geographers and hiſtorians would have named them. We may obſerve further, that the *Kabyles* uſually live upon the mountains, in little villages, called *daſkrahs*, made up of mud-walled hovels (or *gurbies*, according to their own appellation) whereas the *Arabs*, being commonly the inhabitants of the plains, are therefore called *Bedoweens*, living, as the *Nomades* and *Scenitæ* did of old, in tents: a collection whereof, pitched uſually in a circle, with their doors opening towards *Mecca* (their) is called a *douwar*. But the *Moors*, who are the deſcendants of the ancient inhabitants, the *Mauritanians*, live all over *Barbary*, as the *Turks* likewiſe do, in cities, towns, and villages: habitations more permanent than thoſe of the *Arabs*, as they are more durable than thoſe of the *Kabyles*. The language of the *Moors* is the ſame with that of the *Arabs*; the particular dialects being alike in them both, according to their nearer or more diſtant

diſtant ſituation from *Egypt*, where their language is ſuppoſed to be ſpoken in the greateſt propriety and perfection.

If therefore in the courſe of our travels we did not fall in with any of the *daſkrahs* of the *Kabyles*, or with the *douwars* of the *Arabs*, or with the towns or villages above mentioned, we had nothing to protect us from the inclemency either of the heat of the day, or the cold of the night, unleſs we accidentally fell in with a cave or grove of trees, the ſhelve of a rock, or with ſome ancient arches, that had formerly belonged to ſo many ciſterns. At theſe times, which indeed ſeldom happened, our horſes were the greateſt ſufferers: and as they were always our firſt care, we gathered for them ſtubble, graſs, or boughs of trees, before we ſat down and examined what fragments of ſome former meal, were reſerved for ourſelves.

In travelling along the ſea-coaſt of *Syria*, and from *Suez* to *Mount Sinai*, we were in little or no danger of being either robbed or inſulted, provided we kept company with the *caravan* [1], and did not ſtray from it: but a neglect of this kind, through too great an eagerneſs in looking after plants and other curioſities, may expoſe the traveller, as it once did myſelf, to the great danger of being aſſaſſinated. For whilſt I was thus amuſing myſelf, and had loſt ſight of the *caravan*, I was ſuddenly overtaken and ſtript by three ſtrolling *Arabs*; and had not the divine Providence interpoſed in raiſing compaſſion in one, whilſt the other two were fighting for my cloaths (mean and ragged as they were) I muſt inevitably have fallen a ſacrifice to their rapine and cruelty. In the *Holy land*, and upon the *iſthmus* betwixt *Egypt* and the *Red-ſea*, our conductors cannot be too numerous; whole clans of *Arabs*, from fifty to five hundred, being

[1] Vox Perſica eſt *cârvân*, id eſt, *negotiator*, vel collective negotiatores; ſc. tota eorum cohors ſimul iter faciens, quæ Arabice *cafila* vocatur. Hinc mercatorum hoſpitia publica, quæ Arabibus audiunt *cân*, Perſis *cârvân ſerâi* nominantur, i. e. *caravanæ hoſpitium*. Nam *ſerâi* eſt quævis *domus ampla*; unde in Conſtantinopoli, imperatoris palatium fœminarum Turcis dicitur, nomine Perſico, *ſerâi*, Europæis minus bene *ſerail* & *ſeraglio*. Vid. *Periſ. Itinera mundi*, ed. *T. Hyde*, p. 61. In theſe *cans*, *kanes*, or *caravan ſerais*, we can ſometimes purchaſe ſtraw and provender for our horſes, mules, &c. though, generally ſpeaking, they ſupply us barely with a dirty room to lodge in, being built in ſquares, with an area or quadrangle within for the reception of our horſes, &c.

ſometimes looking out for a booty. This was the caſe of our *caravan*, in travelling (A. D. 1722.) from *Ramah* to *Jeruſalem*; where, excluſive of three or four hundred *ſpahees*, four bands of *Turkiſh* infantry, with the *moſolom*, or general, at the head of them, were not able, or durſt not at leaſt protect us from the repeated inſults, ravages, and barbarities of the *Arabs*. There was ſcarce a *pilgrim*, and we were upwards of ſix thouſand, who did not ſuffer, either by loſing a part of his cloaths, or his money; and when theſe failed, then the *barbarians* took their revenge, by unmercifully beating us with their pikes and javelins. It would be too tedious to relate the many inſtances of that day's rapine and cruelty; in which I myſelf had a principal ſhare; being forcibly taken at *Jeremiel* or *Anathoth*, as an hoſtage for the payment of their unreaſonable demands; where I was very barbarouſly uſed and inſulted all that night; and provided the *aga* of *Jeruſalem*, with a great force, had not reſcued me the next morning, I ſhould not have ſeen ſo ſpeedy an end of my ſufferings.

But in *Barbary*, where the *Arabian* tribes are more under ſubjection, I rarely was guarded by more than three *ſpahees* and a ſervant; all of us well armed with guns, piſtols, and ſcimitars; though even here we were ſometimes obliged to augment our numbers; particularly when we travelled either among the independent tribes; or upon the frontiers of the neighbouring kingdoms; or where two contiguous clans were at variance. Theſe and ſuch like ( ) *harammees*, as the free-booters are uſually named in theſe countries, muſt be what the *Europeans* call *wild Arabs*; for there is no ſuch name peculiar to any one particular clan or body of them, they being all the ſame, with the like inclinations (whenever a proper opportunity or temptation offers itſelf) of robbing, ſtripping, and murthering, not ſtrangers only, but alſo one another. In proof of this, I need only mention the many heaps of ſtones that we meet with in ſeveral places in *Barbary*, in the *Holy land*, and in *Arabia*, which have been gradually erected (as ſo many ſigns, *Ezek.* xxxix. 15.) over travellers thus barbarouſly murthered; the *Arabs*, according to a ſuperſtitious cuſtom among them, contributing each of them a ſtone whenever they paſs by them. We read of ſomething like this, *Joſh.* vii. 26.

and

and viii. 29. and 2 *Sam.* xviii. 17. where great heaps of ſtones are ſaid to be raiſed over *Achan*, over the king of *Ai*, and over *Abſalom*.

However, to prevent as much as poſſible the falling into the hands of theſe *harammees*, the greateſt ſafety for a traveller is to be diſguiſed in the habit of the country, or to be dreſſed like one of his *ſpahees*. For the *Arabs* are very jealous and inquiſitive; ſuſpecting all ſtrangers to be ſpies, and ſent to take a ſurvey of thoſe lands, which, at one time or other (as they have been taught to fear, p. 246.) are to be reſtored to the *Chriſtians*.

In our journies betwixt *Kairo* and *Mount Sinai*, the heavens were every night our covering; the ſand, with a carpet ſpread over it, was our bed; and a change of raiment, made up into a bundle, was our pillow. And in this ſituation we were every night wet to the ſkin, by the copious dew that dropt upon us; though without the leaſt danger (ſuch is the excellency of this climate) of catching cold. The continued heat of the day afterwards made us often wiſh that theſe refrigerations could have been hourly repeated. Our camels (for horſes or mules require too much water to be employed in theſe deſerts) were made to kneel down (*Gen.* xxiv. 11.) in a circle round about us, with their faces looking from us, and their reſpective loads and ſaddles placed behind them. In this ſituation, as they are very watchful animals, and awake with the leaſt noiſe, they ſerved us inſtead of a guard.

As there was no chance of meeting, in theſe loneſome and dreary deſerts of *Arabia*, with the leaſt hoſpitality or entertainment; we were obliged to carry along with us every thing that was neceſſary for ſo long and tedious a journey. We took care in the firſt place, to provide ourſelves with a ſufficient quantity of goats ſkins (the ἀσκοὶ or *bottles* ſo often mentioned in Scripture) which we filled with water every four or five days, or oftner if we found it: we laid in a proviſion likewiſe of wine and brandy. Barley, with a few beans intermixed; or elſe the flour of one or other or of both of them, made into balls with a little water, was the provender of our camels. We provided for ourſelves wheat-flour, rice, biſcuit, honey, oil, vinegar, olives, lentils, potted fleſh, and ſuch things as would keep ſweet and wholeſome during two months, the ſpace commonly taken up in compleating this journey. Nor ſhould our wooden baſon and

copper

copper pot be omitted; the latter whereof was the neceſſary utenſil for cooking our proviſions, the other for ſerving it up, or kneading therein our unleavened cakes. Theſe two veſſels made up the whole of our kitchen furniture. When we were therefore either to boil or to bake, the camels dung, that we found left by ſome preceding *caravan* (for wood is very ſcarce) was our uſual fuel; which after being left a day or two in the ſun, quickly catches fire, and burns like charcoal. No ſooner was our food prepared; whether it was potted fleſh, boiled with rice, a lentil ſoup (the *red pottage*, Gen. xxv. 30.) or unleavened cakes ſerved up with oil or honey; than one of the *Arabs (not to eat his morſel alone*, Job xxxi. 17.) after having placed himſelf upon the higheſt ſpot of ground in the neighbourhood, calls out thrice, with a loud voice, to all his brethren, *The ſons of the faithful*, to come and partake of it; though none of them were in view, or perhaps within a hundred miles of us. This cuſtom however they maintain to be a token at leaſt of their great benevolence, as indeed it would have been of their hoſpitality, provided they could have had an opportunity to ſhew it.

But travelling in *Barbary* is of a quite different nature. Here we always endeavour to find out the *douwars* of the *Arabs* (not being fond of viſiting the *Kabyles*, who are a ſet of ſturdy fellows not ſo eaſily managed) where we are entertained at free coſt, as in the towns and villages above mentioned, and as we read of the *wayfaring man*, Jer. xiv. 8. for the ſpace of one night. For in this country the *Arabs* and other inhabitants are obliged, either by long cuſtom; by the particular tenure of their lands; or from fear and compulſion, to give the *ſpahees* and their company the *mounah*, as they call it; which is ſuch a ſufficient quantity of proviſions for ourſelves, together with ſtraw and barley for our mules and horſes. Beſides a bowl of milk and a baſket of figs, raiſins, or dates, which upon our arrival were preſented to us, to ſtay our appetites, the maſter of the tent where we lodged, fetched us from his flock (according to the number of our company) a kid or a goat; a lamb or a ſheep; half of which was immediately ſeethed by his wife, and ſerved up with *cuſcaſooe*; the reſt was made *kab-ab*, i. e. cut into pieces (μίσυλλον is the term, *Hom. Il.* A. ver. 465.) and roaſted; which we reſerved for our breakfaſt or dinner the next day.

Yet

Yet the cold and the dews, that we were every night expoſed to, in the deſerts of *Arabia*, did not incommode us half ſo much as the vermin and inſects of all kinds, which never failed to moleſt us in *Barbary*. Beſides fleas and lice, which might be ſaid, without a miracle, to be here *in all their quarters*, the apprehenſions we were under, in ſome parts at leaſt of this country, of being bitten or ſtung by the ſcorpion, the viper, or the venomous-ſpider, rarely failed to interrupt our repoſe; a refreſhment ſo very grateful and ſo highly neceſſary to a weary traveller. Upon ſight indeed of one or other of theſe venomous beaſts, a (*thaleb* or) *writer*, who was one of my *ſpahees*, after he had muttered a few myſtical words, exhorted us all to take courage, and not be afraid of ſuch creatures, as he had made tame and harmleſs, by his charms and incantations. We were likewiſe no leſs offended (from whence we might leaſt expect it) by their young kids, lambs, and calves, that are tied up, every night, under the eaves of their tents, to prevent them from ſucking their dams. For the cords uſed upon theſe occaſions, being made only of yarn looſely ſpun, the fretful creatures are every moment breaking looſe, dropping their dung, and trampling upon us.

When we were entertained in a courteous manner (for the *Arabs* will ſometimes ſupply us with nothing till it is extorted by force) the author uſed to give the maſter of the tent a knife, a couple of flints, or a ſmall quantity of *Engliſh* gunpowder; which being much ſtronger than their own, is in great eſteem, and kept chiefly for the priming of their *fire-arms*. If the *lallah* (or lady) his wife had been obliging alſo in her way, by making our *cuſcaſooe* ſavoury and with expedition, ſhe would return a thouſand thanks for a ſkean of thread, or for a large needle, or for a pair of ſciſſars; all of them great rarities, and very engaging preſents with theſe people. An ordinary ſilk handkerchief of two ſhillings value, was a preſent for a princeſs.

During the exceſſive heats of the ſummer, and eſpecially when we were apprehenſive of being intercepted by the free-booting *Arabs* or *harammees*, we then travelled in the night; *which having no eyes* (according to their proverb) few of them dare venture out; as not knowing the unforeſeen and unexpected dangers and ambuſcades, which they might poſſibly fall into. At this time we have frequent opportunities of calling to remembrance the beautiful words of the

Pſalmiſt, *Pſal.* civ. 20. *Thou makeſt darkneſs that it may be night; wherein all the beaſts of the foreſt do move. The lions roaring after their prey*; the *leopards*, the *hyænas*, the *jackalls*, and a variety of other ravenous creatures crying out to their fellows, *Iſ.* xiii. 22. and xxxiv. 14: (the different ſexes perhaps finding out and correſponding in this manner with their mates) break in very awfully upon the ſolitude, and the ſafety likewiſe, that we might otherwiſe promiſe to ourſelves at this ſeaſon.

Our horſes and camels keep generally a conſtant pace; the latter at the rate of two miles and an half, the other of three geographical miles an hour; ſixty of which miles, according to my calculation, conſtitute one *degree of a great circle*. The ſpace we travelled over was firſt of all computed by hours, and then reduced into miles, which in the following obſervations, when *Roman* is not mentioned, are always to be taken for geographical miles: I alighted uſually at noon to take the ſun's meridian altitude (called by the *Arabs*, *the weighing of the ſun*) and thereby adjuſt the *latitudes*: obſerving all along the courſe and direction of our travelling by a *pocket-compaſs*; the variation whereof (A. D. 1727.) I found at *Algiers* to be 14°, and at *Tunis* 16° to the weſt. Every evening therefore, as ſoon as we arrived at our *connack* [a] (for ſo the *ſpahees* call the tents, the houſes, or places where we put up) I uſed to examine what *latitude* we were in, how many hours and in what direction we had that day travelled; making proper allowances for the ſeveral windings and occaſional deviations that we had made out of the direct road. In our paſſage through the mountains and foreſts, or where the plains were cut through with rivers (for we no where met with hedges, or mounds,

[a] *Connac* is at preſent the ſame appellation in the *Eaſt*, with the πανδοχεῖον and καταλύματα in the Old and New Teſtament, which are rendred inns or *hoſpitia*. But excepting the *caravanſerais*, which may in ſome meaſure anſwer to the πανδοχεῖα and καταλύματα (thoſe which I have ſeen were only bare walls) there are properly ſpeaking no houſes of entertainment in this country; in the ſenſe at leaſt that we underſtand *inns* or *hoſpitia*; *viz.* where we can be provided with lodgings, proviſions, and other neceſſaries for our money: For a *conac* denotes the place itſelf only, whether covered or not, where the travellers or caravans halt or break off their journey for a time, in order to refreſh themſelves and their beaſts of burthen. Thus the *malon*, or inn, *Gen.* xlii. 27. and xliii. 21, &c. where the ſons of *Jacob* opened their ſacks to give their aſſes provender, are no other than one of the like ſtations, which I have deſcribed above in *Arabia*, *viz.* the place where they themſelves reſted and unloaded their aſſes. Vid. not. 1. p. ix.

or incloſures to retard and moleſt us) it frequently happened, that when we had travelled eight hours, *i. e.* twenty four miles, they were, according to the method above laid down, and as far as *longitude* or *latitude* were concerned, to be eſtimated for no more than eighteen or twenty. I found by obſervation the *latitude* of *Algiers*, by which that of other places is regulated, to be 3° 32′ 30″ *eaſt* of *London*, which in the maps is my *firſt meridian:* according to which they are all of them laid down and projected. And here, to digreſs a little from the *diary-part*, and to give ſome account of the work itſelf, I am to acquaint the reader, that the prickt ..... or double= lines, which are traced out upon the maps, denote the places they paſs through, to be laid down according to the obſervations of the author. Mr. *Sanſon*, who attended, for many years, the *viceroy* of *Conſtantina* as his ſlave and ſurgeon, ſupplied me with a great many geographical remarks concerning that province; in the deſcription of which, particularly with regard to *Lambeſe*, I am likewiſe obliged to the learned and curious Dr. *Poiſſonel*, who took, A. D. 1726, a ſurvey of the greateſt part of the kingdoms of *Algiers* and *Tunis*, at the expence of the *French* king. In the deſcription of the weſtern portion of the *Zeugitania*, which the civil wars (A. D. 1727.) prevented me from viſiting, I am much indebted to the learned Father *Franciſco Ximenes*, then the *Spaniſh adminiſtradôr* at *Tunis*, who very generouſly communicated to me his notes and remarks, which he had made, in his ſeveral journeys over thoſe parts. The provinces of *Zaab*, *Wadrang*, and the other ſouthern diſtricts of the kingdom of *Algiers*, are laid down from the repeated accounts which I received of thoſe countries from the inhabitants themſelves; with whom we have frequent opportunities of converſing, in almoſt every city of *Barbary*. And as I rarely found them diſagree in their accounts, I am perſuaded that I have been little, if at all, impoſed upon by them.

The ſeveral names of the places and tribes of theſe kingdoms are all of them written according to the *Engliſh* pronunciation and the force of our own alphabet. The *Arabic* letters ج ق ح anſwering to our *j*, *h*, and *w* make thoſe words (which indeed are very numerous) wherein they occur, to have an eaſier tranſition into our language, than into the *French* or *Italian*; and, for the want of the like

correſpondent letters, the authors who have deſcribed theſe countries, have generally miſcalled the true *Arabic* appellations, and thereby rendred them uſeleſs to travellers, as I can ſpeak by experience, in making inquiries after particular places there recorded, by being thus ſtrangely expreſſed in thoſe idioms.

The ſtars (*) that are prefixed to the names of ſeveral cities in *Barbary*, denote them to have been *epiſcopal ſees* at the time they were poſſeſſed by the *Chriſtians*. We learn from the *Notitia*, that they were, at one time or other, more than ſix hundred; though, for want of geographical circumſtances, I have not been able to adjuſt the ſituation of more than one hundred of them. And, in examining their ruins, I have often wondered that there ſhould remain ſo many altars and tokens of *Pagan* idolatry and ſuperſtition, and ſo very few croſſes or other monuments of *Chriſtianity*. Yet even this may perhaps be well enough accounted for, from that great hatred and contempt which the *Saracens* have always had for the *Chriſtian name*, and of their taking all imaginable opportunities to obliterate and deſtroy it: wherein they are further encouraged, by finding not only a number of coins, but large pieces of lead and iron alſo, wherewith the ſtones, which they are thus induſtrious to pull down, are bound together. But of theſe coins I rarely met with any that were either valuable or curious. Such of them as are purely *African*, or *Carthaginian*, or carry along with them at leaſt the *inſignia* and characteriſtics of being ſtruck there or in *Sicily*, and other of their colonies, may be well accounted the rareſt; and of theſe I have given the reader ſeveral drawings and deſcriptions: not taking the leaſt notice of the *Miſſilia* as they are called, of the lower empire; nor of the coins, which are equally common, of *Antoninus Pius*, *Marcus Aurelius*, *Alexander*, *Gordianus*, and *Philippus*; in whoſe times theſe parts of *Africa* appear to have been adorned with the moſt ſumptuous edifices. I have ſome pieces likewiſe of *glaſs money*, found in the ruins of ſuch of their buildings, as were erected by their *ſultans*, *viz. Occ'ba* and *Ben Egib:* For theſe, no leſs than thoſe that were erected by their predeceſſors the *Carthaginians* and *Romans*, have been equally ſubject to their changes and revolutions. Theſe coins, of which I have two ſorts, the one of the bigneſs of a farthing, the other of a ſilver twopence, are flat and plain on the one ſide, and impreſſed on the other

with

with the *Mahometan* creed, *viz. There is no God but God; Mohammed is the apoſtle of God.*

But to return to what was the more immediate deſign of this *preface*. Our *ſtages* or *days journeys* were not always the ſame. For when any danger was apprehended, we then travelled through as many by-paths, as our conductors were acquainted with; riding, in this manner, without halting, ſometimes twelve, ſometimes fifteen hours. Nay, in returning from *Jeruſalem* (ſo vigilant were the *Arabs* in diſtreſſing the *pilgrims*, and particularly myſelf) that notwithſtanding we had the *ſheck* (or ſaint) of *Mount Carmel*, with twenty of his armed ſervants to protect us, we reſted only one hour in two and twenty: for ſo long a time we were in travelling, and that very briſkly betwixt *Sichem* and *Mount Carmel*. But in the kingdoms of *Algiers* and *Tunis*, an ordinary day's journey (excluſive of the time taken up in making obſervations) rarely exceeded eight or nine hours. Our conſtant practice was, to riſe at break of day, ſet forward with the ſun, and travel till the middle of the afternoon; at which time we began to look out for the encampments of the *Arabs*; who, to prevent ſuch parties as ours from living at free charges upon them, take care to pitch in woods, valleys, or places the leaſt conſpicuous. And indeed, unleſs we diſcovered their flocks, the ſmoke of their tents, or heard the barking of their dogs, it was ſometimes with difficulty, if at all, that we found them. Here, as was before obſerved, we were accommodated with the *mounah*; and if, in the courſe of our travelling, the next day,

We chanc'd to find
A new repaſt, or an untaſted ſpring,
We bleſs'd our ſtars, and thought it luxury.

This is the method of travelling in theſe countries; and theſe are its pleaſures and amuſements. Few indeed in compariſon with the many toils and fatigues; fewer ſtill with regard to the greater perils and dangers that either continually alarm, or actually beſet us. And beſides, as the reader will have too frequent occaſion to remark, the diſcoveries we are thus eager to purſue, and which are the occaſion of all this anxiety and labour, how ſeldom is it that they anſwer our expectations? Even theſe larger ſcenes of ruin and deſolation at *Jol*

Cæſarea,

Cæſarea, *Cirta*, *Carthage*, and other of the more celebrated cities in *Africa*, where we flattered ourſelves to be entertained with ſuch diffuſive ſcenes of antiquity and inſtruction, yet, when we come more nearly to view and examine them, how infinitely do they fall ſhort of what before-hand we had conceived in our minds of their beauty and munificence. Inſtead of really diverting or inſtructing us, in the manner we apprehended, they have ſometimes produced quite contrary effects, by engaging us at once in a very ſerious turn of thought and meditation. For here we are immediately ſtruck with the very ſolitude of theſe few domes, arches, and porticos that are left ſtanding; which, hiſtory informs us, were once crouded with inhabitants; where *Scyphax* and *Maſiniſſa*; *Scipio* and *Cæſar*; the *Orthodox Chriſtians* and the *Arians*; the *Saracens* and the *Turks*, have given laws in their turn. Every heap of ruins points out to us the weakneſs and inſtability of all human art and contrivance; reminding us further of the many thouſands that lie buried below them, which are now loſt in oblivion and forgotten to the world. Whilſt we are full of theſe thoughts and meditations, *Chriſtianity* ſteps in to our relief, acquainting us that we are only *ſtrangers* and *pilgrims upon earth*; *ſeeking a city* (not like theſe ſubject to the ſtrokes of time and fortune; but) *which hath everlaſting foundations*, *whoſe builder and maker is God*, Heb. xi. 9, &c.

TRAVELS

TRAVELS

OR

OBSERVATIONS

RELATING TO

BARBARY.

TOME I.

IN THREE PARTS.

WHEREOF THE

I. and II. relate to the GEOGRAPHY,

III. relates to the NATURAL HISTORY,

OF THE

KINGDOMS

OF

ALGIERS and *TUNIS.*

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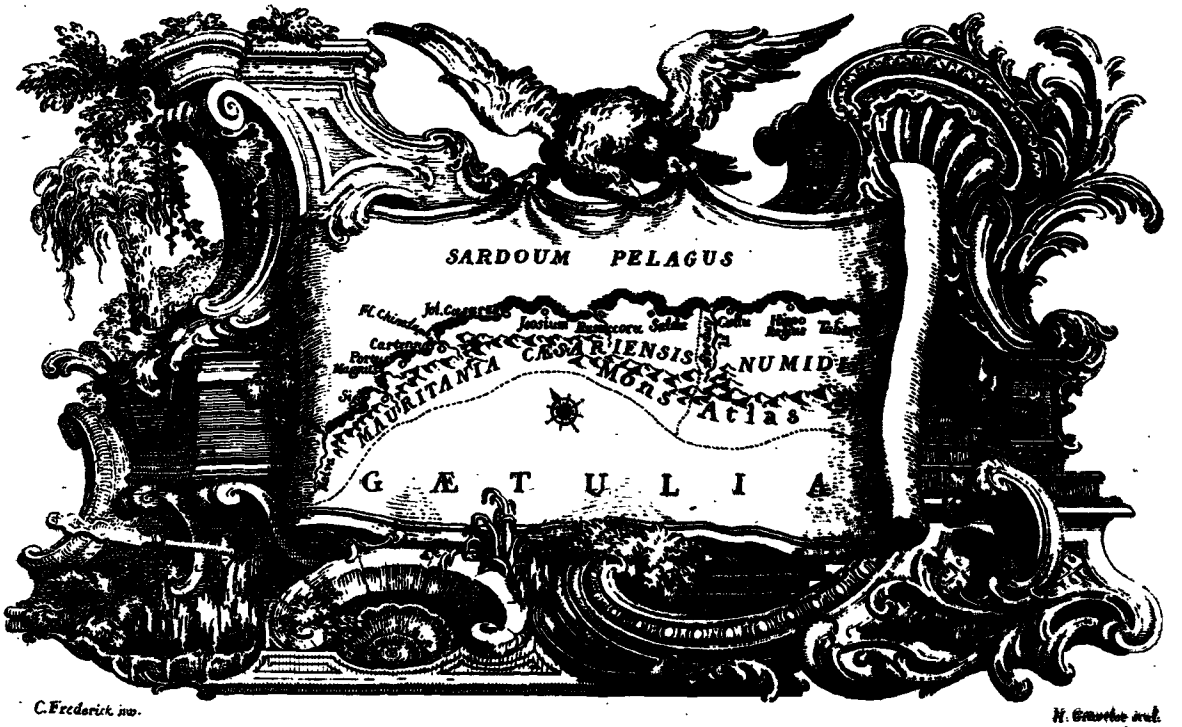
A Map of the WESTERN PROVINCE of the KINGDOM of ALGIERS
To the most Reverend FATHER IN GOD LANCELOT Lord Archbishop of YORK Primate & Metropolitan OF ENGLAND
The Meridian of London
MEDITERRANEAN SEA
ATLANTIC OCEAN
The Route of the Author by Sea
The Desert of the Arabs
THE SAHARA
MATCHIAH
Part of the METIJIAH
Part of the Mountains of the Lowaate and Ammer
ANGAD
BENI SNOUSE
Sebkah
Cape Hone
Cape Falcon
Cape Ferratt
SAHARA



CHAP. I.

Of the Kingdom of ALGIERS *in general.*

THE kingdom of *Algiers*, since it became ſubject to the *Turks*, has been one of the moſt conſiderable diſtricts of that part of *Africa*, which the later ages have known by the name of *Barbary* [1]. It is bounded to the weſt, with *Twunt* and the neighbouring mountains of *Trara*; to the ſouth, with the *Sahara*, or deſert; to the eaſt, with the river *Zaine*, the ancient *Tuſca*; and to the north, with the *Mediterranean* ſea. *The limits of this kingdom.*

[1] *Africa* veteribus proprie dicta, hodie *Barbaria* quibuſdam vocatur, aliis *Barbariæ* pars. *Thuan. Hiſt.* l. vii. *Moros*, *Alarbes*, *Cabayles*, y algunos *Turcos*, todos gente puerca, ſuzia, torpe, indomita, inauil, inhumana, beſtial: y por tanto tuuo porcierto

The length of it. *Sanſon* [1], in bounding this kingdom with the rivers *Mulvia* and *Barbar*, as he calls the *Mullociah* and the *Zaine*, makes it DCCCC M. from eaſt to weſt; *De la Croix* [2], DCCXX; *Luyts* [3], by reckoning XLVIII½ M. for one degree of longitude, allows it to be about DCXXX: whereas others [4] make it of a leſs extent. But according to the exacteſt obſervations which I could make myſelf, or receive from others, I find the true length of this kingdom, from *Twunt*, (which lyes XL M. to the eaſtward of the *Mullociah*) to the river *Zaine*, to be, a little more or leſs, CCCCLXXX M. the firſt lying in 0° 16′ w. longit. from *London*; and the latter, upon whoſe weſtern banks *Tabarka* is ſituated, in 9° 16′ to the eaſt.

The breadth. There is not the like diſagreement among theſe geographers, in relation to the breadth of this kingdom, though none of them [5] make it leſs than CL M. where it is the narroweſt; nor more than CCXL where it is the broadeſt. The breadth indeed, though much ſhort of theſe accounts, is not every where the ſame: for near *Tlem-ſan* it is not above XL M. from the *Sahara* to the ſea coaſt; near the ſources of the rivers *Sigg*, and *Shelliff*, it is about LX; which, in the weſtern part of this kingdom, may be taken at a *medium* for the extent of what the *Arabs* call *Tell*, i. e. *land proper for tillage*. But, to the eaſtward of *Algiers*, the breadth is more conſiderable; particularly in the meridians of *Boujejah*, *Jijel*, and *Bona*, where it is never leſs than C M.

The diſagreement between the old and new geography. With regard to the old geography, *Pliny* [6], who is followed herein by *Martianus* [7], makes the breadth alone of the *Mauritaniæ* to be CCCCLXVII M. i. e. CCC M. at leaſt more than will agree with that part of this kingdom which anſwers thereto. The CC M. likewiſe, which the ſame author [8] lays down for the particular breadth of *Numidia*, is nearer the truth, tho' ſtill with an exceſs of at leaſt LX M. *Ptolemy* [9], by placing the *Mauritania Cæſarienſis* between the *Malva* and the *Ampſaga*, (or the *Great River*, as it is now called;) i. e. from long. 11° 10′ to long. 26° 15′, extends that province alone, (by allowing, agreeably to theſe degrees of longitude, (as it has been already obſerved, XLVIII ½ M. to one degree;) upwards of DCC M. And if to theſe we add CCXL, i. e. the 5° diſtance, as he makes it,

razon, el que *da pocos anõs aca acoſtumbro llamar a eſta terra*, BARBARIA, pues, &c. *D. Haedo de la captiuidad en ſu Topogr. e Hiſtor. de Argel.* p. 126. Vallad. 1612.

[1] *L'Afrique en pluſieurs Cartes nouvelles*, &c. p. 23. à Paris 1683. [2] *Nouvelle Methode pour apprendre le Geogr. Univerſ.* Tom. v. p. 280. à Paris 1705. [3] *Introd. ad Geographiam*, p. 669. Traj. ad Rhenum, 1692. [4] *Moll's Geography*, Part. ii. p. 146. Lond. 1722. *Atlas Geograph.* Vol. iv. p. 182. [5] The *Geographical* and *Roman* miles differ, as 60 is to 75 ½. *i. e.* 60 *Geogr.* and 75 ½ *Roman* miles are equal to 1° of a great circle. Vide *Danville's Introd. to Geogr.* [6] *Plin.* l. v. c. 2. [7] *Mart. Cap. de duab. Maurit.* [8] *Plin.* l. v. c. 4. [9] *Ptol.* l. iv. cap. 2.

betwixt

betwixt the *Ampſaga* and *Tabraca*, the whole diſtance betwixt the *Malva* and *Tabraca* will be DCCCCXL M. i. e. betwixt *Twunt* and *Tabarca* DCCCC M. Neither muſt we omit another great error of this author, who by placing his *Great Promontory* or *Cape Hone*, as it is now called, in N. lat. 35°, and the *Ampſaga* in 31° 45′; and ſo, in proportion of the interjacent places, makes this part of the ſea-coaſt to lie in an E. S. E. direction: whereas the greateſt part of it, as far as *Rus-acconatter* near *Algiers*, lies the contrary way, or nearly in a N. E. direction; not to mention other particular places in his tables, relative to them both, which are put 5° or CCC M. further to the S. than they are found to be by obſervation.

And then again, with regard to the extent of this kingdom, as it is laid down in the *Antonine Itinerary*, we are to obſerve, that the *Portus Cæcili* (a few miles only from *Twunt*, our weſtern boundary) and *Tabarca* are placed nearly one thouſand *Roman*, or DCCC *Geographical* miles from each other; C M. ſhort indeed of *Ptolemy's* account; tho' above CCC M. more than the real diſtance betwixt them. But to ſhew, without being too particular at preſent, how cautiouſly this guide or directory is ſometimes to be followed or relied upon, we need only give the reader, in one view, ſome of the more noted places, with their diſtances as they are marked down there, and as they have been found, in the following ſheets, by obſervation, *viz.*

In the *Itinerary*.	In the following obſervations.
MALVA, or, according to the preſent name,	*Mulloüah*
From CAESAREA CCCXVI — —	or *Sherſhell* CCLXIII
From SALDIS CCXIV — —	or *Bougeiah* CC
From RUSSICADE CCCXVIII. *Cod. Vat. mſ.* CXVII	or *Skigata* CVI
From HIPPONE REGIO CCXV. *Exemp. Bland.* CXV.	or *Bona* XCIII
From CARTHAGINE CXIII. *al.* CXCII —	or *Carthage* CCXII.

The dominion of the Algerines *in the* Sahara.

But to return to the modern geography of this kingdom, and to deſcribe the further extent of it, we are to obſerve, that the dominion, which the *Algerines* pretend to beyond the *Tell*, is very uncertain and precarious: for which reaſon I have fixed the proper boundaries and limits of this kingdom that way, ſometimes upon the northern ſkirts of the *Sahara*; ſometimes upon the moſt advanced parts of the mountains of *Atlas*; which, indeed, for the moſt part, coincide with them. Some of the villages indeed of the province of *Zaab* and others likewiſe, that have a more diſtant ſituation from *Algiers*, pay regularly their annual taxes, or at leaſt give ſome tokens of ſubmiſſion to the *Turks:* but the other communities are all of them independent: whilſt the correſpondent *Arabs* are ſeldom brought under contribution; being always upon their guard, or at a diſtance: particularly when the *Turkiſh* armies are abroad to collect the taxes.

The ſouthern part of this kingdom, which I am now ſpeaking of, together with the whole tract of land, that lyes in that direction between the *Atlantic* ocean and *Egypt*, is called by moſt of the modern geographers, *Biledulgerid*; or, according to it's true name, *Blaid el Jeridde*, i. e. *The dry country*. Though, if we except the *Jerid*, a ſmall portion of it, that is ſituated near the *Leſſer Syrtis*, and belongs to the *Tuniſeans*; all the reſt of it is known (at leaſt to thoſe *Arabs* whom I have converſed with) by no other general name than the *Sahära*, i. e. *The deſert*, as we may interpret it.

The provinces of this kingdom.

Gramage, *De la Croix*, and other modern geographers, divide this kingdom into a great many provinces, according to the ſeveral petty royalties which, at one time or other, it was canton'd into, before and after the time of the *Turkiſh* conqueſts. But at preſent there are only three, *viz.* the province of *Tlem-ſan*, to the weſt; of *Titterie*, to the ſouth; and of *Conſtantina*, to the eaſt of *Algiers*. The dey appoints over each of theſe provinces a bey or viceroy, who has a deſpotic power within his juriſdiction; and at the appointed ſeaſons of collecting the tribute, upon a rebellion, inſurrection, or other the like occaſions, is aſſiſted with a body of troops from *Algiers*.

This kingdom was formerly the Numidia, *&c. of the ancients.*

Thus ſtands, at preſent, the general deſcription and diviſion of this kingdom, which, upon compariſon, will correſpond with the *Provincia Nova* [1] or *Numidia* [2] of the ancients. For if we bound it with the river *Tuſca* [3], (i. e. the *Zaine*) to the eaſt, it will then contain a part of the *Africa* of *Pomponius Mela* [4] and *Ptolemy* [5]; the *Numidia* properly ſo called [6], or the *Numidia* of the *Maſſyli* [7]. And again, as it is bounded to the weſtward with the mountains of *Trara*, (excepting that ſmall ſpace of it which lies from thence to the *Mullooïah*, and belongs to the *Weſtern Moors*) it will take in the other *Numidia*,

[1] Καῖσαρ —— τὰς Νομάδας λαβὼν, ἔς τε τὸ ὑπήκοον ἐπήγαγε —— τὰ ἐν τῇ Λιβύῃ ἔθνη ταῦτα, τὸ μὲν πρῶτον Καρχηδόνα (ὁ δὴ καὶ Ἀφρικὼ καλεῖσθαι) παλαιὸν, ὅτι ἐκ πολλοῦ κατείργασο· τὸ δὲ δὴ τῶν Νομάδων, νέον, ὅτι νεωστὶ ἐλήφθη, ἐπωνομάσθη. *Dion. Hiſt. Rom.* l. xliii. p. 245 6. Ed. *Steph.* [2] *Numidæ* poſſedere ea loca, quæ proxuma *Carthaginem Numidia* appellatur. *Sal. Bell. Jug. Cantab.* 1710. § 21, p. 287. Ad *Mauritaniam Numidæ* tenent. *Id.* § 22. [3] *Plin.* l. v. capp. 3, 4. [4] *P. Mel. Africæ Deſcript.* c. vii. [5] *Ptolem. Africæ Sit.* c. iii. Τῆς δὲ Λιβύης —— εἰσιν, αἱ δύο Μαυρεταναίαι, δυτικωτέρα μὲν ἡ Τιγγιτανὴ, ἐχομένη δὲ ταύτης Καισαρησία, μεθ' ἣν ἡ Ἀφρικὴ, εἶτα ἡ Κυρηναϊκὴ, &c. *Agathem.* l. ii. cap. 5. [6] *Plin.* ut ſupra. *Solin. Polyhiſt.* c. 26. *Æthic. Coſmog.* Lug. Bat. p. 63. *Martian Capell. de duabus Maurit. Iſid.* c. 5. [7] *Strab. Geog.* Ed. Amſt. l. ii. p. 193. & l. xvii. 1188. Cum *Syphace Romanis* juncta amicitia eſt. Quod ubi *Carthaginienſes* acceperunt, extemplo ad *Galam* in parte altera *Numidiæ* (*Maſſyla* ea gens vocatur) regnantem, legatos mittunt. *Liv.* l. xxiv. § 48. *Syphax* erat Rex *Numidarum*. ibid. *Maſſylii* regnum paternum *Maſaniſſæ* læti, ut ad regem diu deſideratum conceſſere. *Syphax*, pulſis inde præfectis præſidiiſque ſuis, vetere ſe continebat regno, neutiquam quieturus. *Id.* l. xxx. § 11.

viz.

viz. the *Numidia* of *Mela* [1], or the *Numidia* of the *Maſſæſyli* [2]: this was called afterwards, when the *Romans* were in full poſſeſſion of it, the *Mauritania Cæſarienſis* [3]; and, in the *middle age*, that part of it which lay near the city *Sitifi*, took the name of *Sitifenſis*, as we learn from *Æthion*, *Iſidore*, and other geographers of that time.

The mountains of Atlas, *were*

We may well take that remarkable chain of eminences, which ſometimes borders upon the *Sahara*, and ſometimes lies within the *Tell*, to be the *Aſtrixis* of *Oroſius*, the ſame with *Mount Atlas*, ſo noted in hiſtory. Yet, it may be obſerved, that this mountain is not always of that extraordinary height or bigneſs which have been attributed to it by the ancients, being rarely or ever equal, as far as I have ſeen, to ſome of the greater mountains of our own iſland; and perhaps can no where ſtand in competition either with the *Alps*, or the *Appennines*. If we conceive, in an eaſy aſcent, a number of hills, uſually of the (perpendicular) height of four, five, or ſix hundred yards, with a ſucceſſion of ſeveral groves and ranges of fruit and foreſt-trees growing, one behind another, upon them: and if, to this proſpect, we ſometimes add a rocky precipice of ſuperior eminence and more difficult acceſs, and place upon the ſide, or ſummit of it, a mud-walled *Daſhkrah* of the *Kabyles*, we ſhall then have a juſt and lively picture of mount *Atlas*, without giving the leaſt credit to the *nocturnal flames*, to the *melodious ſounds*, or *laſcivious revels* of ſuch imaginary beings, as *Pliny* [4], *Solinus*, and others, have, in a peculiar manner, attributed to it.

The Dyris, *&c. of the Ancients; or*

It has been remarked by ſome of the old geographers, that theſe mountains were called *Dyris* and *Adiris*, or *Dyrim* and *Adderim* [5] by the *Indigenæ* or firſt inhabitants; but have not attempted to give us the ſignification or import of thoſe words. *Bochart* [6] obſerves, that *Atlas* was called *Dyris* by the *Phœnicians*; perhaps from [אדיר [7]] *Addir*, which ſignifies *great* or *mighty*. Upon the ſea coaſt of *Tin-*

[1] *P. Mel.* c. vi. [2] Vid. Not. 7. *Maſaniſſa* non in poſſeſſione modo paterni regni eſſet, ſed etiam ſocios *Carthaginienſium* populos, *Maſſæſylorum* fines (id *Syphacis* regnum erat) vaſtaret. *Liv.* l. xxix. § 32. *Maſſæſyli* gens affinis *Mauris*, regionem *Hiſpaniæ*, maxime qua ſita eſt *Carthago* nova, ſpectant. *Id.* l. xxviii. § 17.

Poſt hos immenſæ Nomadum *de ſemine gentes*,
Atque Maſæſylii, *nec non* Maſylia *proles*.

Priſcian. Perieg. ℣ 176-7.

[3] *Plin.* l. v. c. 2. *Solin. Polyhiſt.* c. 25. *Æthic. Coſmog.* p. 63. *Iſid. de Libya*, c. 5. Ὁ Κλαύδιος διχῆ τὰς Μαύρους τοὺς ὑπηκόους ἔνειμεν, ἐς τε τὰ περὶ Τῖγιν καὶ ἐς τὰ περὶ Καισάρειαν (ἀφ' ὧνπερ καὶ ὀνομάζονται) καὶ δύο ἄρχουσιν ἱππεῦσι προσέταξε. *Dion. Hiſt. Rom.* l. lx. p. 771.

[4] *Herod.* p. 280. Ed. Lugd. Bat. *Plin.* l. v. c. 1. *Solin. Polyhiſt.* c. 24. *Mart. Capell. de Afric.* [5] *Strab.* l. xvii. p. 1185. *Plin.* l. v. c. 1. *Solin. Polyhiſt.* l. xxiv. *Mart. Capell. de Afr.* [6] *Phil.* l. ii. c. 13. [7] Vid. *Schindler. Lex. in voce.*

gitania,

gitania, we find *Ruſſadirum*, Ρυσσάδιρον, a word of near affinity with it, mentioned by *Mela*, *Pliny*, *Ptolemy*, and the *Itinerary*. The ſame name likewiſe, or *Raſaddar*, is given at preſent by the *Moors* to *Cape Bon*, the *Promontorium Mercurii*; thereby denoting a large conſpicuous *cape*, *promontory*, or *Fore-land*. Or rather, as *Mount Atlas* runs for the moſt part eaſt and weſt, and conſequently bounds the proſpect as well as the agriculture of the *Mauritanians* and *Numidians* to the ſouth: we may deduce the names above-mentioned from the aſpect and ſituation of the mountains themſelves, to whom they are attributed. For, among the *Moors* and *Arabs*, *Dohor* ſtill denotes the place or aſpect of the ſun at noon-day, as *Derem* [1] does the like in the *Hebrew*. If then we chooſe to call it, not ſimply *Dyrim* with *Strabo* and *Pliny*, but *Adderim* with *Solinus* and *Martianus*; *Adderim* or *Hadderim*, by the addition of *Had*, which denotes a mountain, will ſignify either the *great*, or elſe the *ſouthern*, eminence, limit or boundary, ſuch as *Mount Atlas* generally is with reſpect to the *Tell*, or cultivated parts of this country.

The great or Southern boundary.

Gætulia [2], a part of *Ptolemy's Inner Libya*, is laid down in very indefinite terms by the ancients; though by comparing their ſeveral accounts and deſcriptions together, we ſhall find the northern limits thereof to be contiguous to, and frequently to coincide with, the ſouthern limits of the *Mauritaniæ* and of *Numidia*. The villages therefore of *Zaab*, the ancient *Zebe*, with others ſituated near the parallel of the river *Adje-dee*, will belong to *Gætulia* properly ſo called: as the *Figigians* had *Beni-Mezzab*, and the inhabitants of *Wadreag* and *Wurglah*, with their reſpective *Bedoween Arabs*, (all of them ſituated ſtill further to the ſouthward, and of a ſwarthier race and complexion) may be the ſucceſſors of the ancient *Melanogætuli*, and of other *Libyans*, if there were any, who lay nearer the river *Niger* and the *Ethiopians*.

Gætulia *was a part of the* Sahara.

The Mælanogætuli.

So much in general concerning the comparative geography of this kingdom; and, if we come to particular places, *Cellarius* has already obſerved, that the order and ſituation of them is variouſly ſet down

The diſagreement of geographers with regard to particular places.

[1] דרם *Auſter*, *Meridies*: *Plaga meridionalis*: ſic dicta quaſi דר דום *Habitatio alta*: quod Sol in iſta plaga altius incedat. *Schind. in voce. Targ. Jonath. Joſh.* x. 40.

[2] *Libyes* propius mare *Africum* agitabant: *Gætuli* ſub Sole magis, haud procul ab ardoribus, hique mature oppida habuere. *Sall. Bell. Jug.* § 21. p. 286. Super *Numidiam Gætulos* accepimus, partim in tuguriis, alios incultius vagos agitare: poſt eos *Æthiopas* eſſe. *Id.* § 22. p. 291. Ὑπέκειται δὲ ταῖς μὲν Μαυρεταναίαις ἡ Γαιτυλία. *Ptolem.* l. iv. c. 6. *Strab.* l. xvii. p. 1182. 1185. 1192.

Tergo Gætulia *glebam*
Porrigit, & patulis Nigritæ *finibus errant.*
Ruf. Feſt. l. 321.

by the ancients [1]; and, we may likewiſe add, by the moderns. The reader will ſoon be enough acquainted with this country, to embrace the ſame opinion. And, if the ſituation of ſeveral of the ancient rivers, ports, or cities, may be fixed and ſettled by ſome few names, ruins, or traditions of them, that are continued down to our times, he will likewiſe have further occaſion to complain of the want of accuracy and correctneſs both in the old and the later geography.

No apology, we preſume, need be made for the little amuſement and entertainment, which ſome readers may receive from theſe or other of our *geographical enquiries*. *Strabo*, *Ptolemy*, and *Pliny*, thoſe celebrated maſters in this branch of literature, have given us the pattern, which we have all along endeavoured to follow and imitate: with what ſucceſs, muſt be left to the judgment and deciſion of thoſe alone who are acquainted with, and take delight in, theſe ſtudies.

CHAP. II.

Of that part of the Mauritania Cæſarienſis, *which belongs to the* Tingitanians *or* Weſtern-Moors.

AS the *Mauritania*[2] *Cæſarienſis* extended itſelf as far as the river *Malva*, I ſhall begin the account I am to give of it from that river. *The* Mullooïah *is the ancient river* Malva.

The *Malva* then, *Malua*, Μαλουα, or *Mul-looïah*, (according to the pronunciation of the *Moors*) is a large and deep river, which empties itſelf into the *Mediterranean Sea*, over-againſt the bay of *Almeria* in *Spain*. It lies, as was before obſerved, about XL M. to the weſtward of *Twunt*, and CCXL M. from the *Atlantic ocean*. Small cruiſing veſſels are ſtill admitted within it's channel; which, by proper care and contrivance, might be made ſufficiently commodious, as it ſeems to have been formerly, for veſſels of greater burthen. The ſources of it, according to *Abulfeda*, are a great way within the *Sahara*, at the diſtance of DCCC M. and the whole courſe of it, contrary to moſt of the other rivers; lies nearly in the ſame meridian.

The *Mullooïah* therefore, as it appears to be the moſt conſiderable river in *Barbary*, ſo it is by far the fitteſt for ſuch a boundary, as the ancient geographers and hiſtorians have made it, betwixt *Mauritania* *The* Mullooïah, Molochath, *and* Mulucha *the ſame.*

[1] Multa in *Mauritania* turbata & confuſa videntur, quod ad loca ſingula demonſtrabimus. *Cellar. Geograph. Antiq.* l. iv. cap. 5. p. 126. [2] Vid. Not. 3. p. 5.

and

and *Numidia*; or betwixt the *Mauritania Tingitana* and *Cæſarienſis*, as they were afterwards called. The ſame river likewiſe, by comparing together the old geographers, will appear to be the *Molochath* and the *Mulucha:* for both theſe names have no ſmall affinity with the *Mullooiah* or *Mul-úhhah*, the true original name perhaps of the *Malva*, or Μυλάϛα. The ſame boundary likewiſe between the *Mauri* and the *Maſſæſyli*, which is by *Strabo* [1] aſcribed to the *Molochath*, is by *Salluſt* [2], *Mela* [3], and *Pliny* [4] aſcribed to the *Mulucha*. As then the *Mauritania Cæſarienſis*, which extended to the *Malva*, was the ſame with the country of the *Maſſæſyli*, which likewiſe extended to the *Molochath* or *Mulucha*; the *Malva*, *Molochath*, and *Mulucha* muſt be the ſame river with the preſent *Mul-looïah*.

TRES INSULÆ. THREE little iſlands, where there is good ſhelter for ſmall veſſels, are ſituated to the N.W. of the river, at the diſtance of x M. Theſe are the *Tres Inſulæ* of the *Itinerary*.

Seedy Abdelmoumen, *or* LEMINIS. Six leagues further to the eaſtward is the village of *Seedy* [1] *Abdelmoumen*, one of the tutelar *Marab-butts* or ſaints of this country, whoſe tomb they have here in the greateſt veneration. Below it, there is a ſmall but commodious road for veſſels, which the row-boats of this country frequently touch at; as they do likewiſe at *Mai-ſear-da*, a little beyond it to the eaſt. This, which is another of the leſſer maritime villages of *Barbary*, from whence a great quantity of grain is often ſhipped for *Europe*, is made up, like thoſe in the inland country, in a careleſs ſlovenly manner, with mud, ſtone, timber, hurdles, and ſuch materials, as are not the moſt durable, but the moſt eaſily

Maiſearda.

[1] *Strabo*, l. xvii. p. 1183.

[2] Haud longe à flumine *Muluchæ*, quod *Jugurthæ Bocchique* regnum disjungebat; &c. *Sal. Bell. Jugurth.* Cantab. 1710. § 97. p. 471. *Gætulorum* magna pars & *Numidæ* ad flumen uſque *Mulucham* ſub *Jugurtha* erant; *Mauris* omnibus rex *Bocchus* imperitabat. *Id.* § 22. p. 292. Ego flumen *Mulucham* quod inter me & *Micipſam* fuit, non egrediar, neque *Jugurtham* id intrare ſinam. *Bocchi Orat. Id.* § 118. p. 524. Ad *Mauritaniam Numidæ* tenent: proxume *Hiſpaniam Mauri* ſunt. *Id.* § 22. p. 291. Pauci ad Regem *Bocchum* in *Mauritaniam* abierant. *Id.* § 66. p. 398. [3] *P. Melæ Afr. deſcript* cap. 5. in fine. [4] *Plin.* l. v. cap. 2. [5] *Ptol.* l. iv. cap. 2. *in princip.*

[1] *Seedy* (or *Cid*) as the *Spaniſh* hiſtorians write it, (which we ſhall have frequent occaſion to mention) is the ſame word of reſpect amongſt the *Moors* and *Arabs*, that *ſir*, *maſter*, or *lord* is amongſt us; but which they attribute in a higher degree to their *Mar-rab-butts*, as they call ſuch perſons who are or have been remarkable for any extraordinary ſanctity of life, or auſterity of manners. Theſe *Mar-rab-butts* (whom I ſhall have frequent occaſion likewiſe to mention) are uſually buried under a little vaulted roof, (or *Cubba*, as they call it; from whence our *Cupola*) having their tombs painted and adorned with beads, ribbons, and ſuch like trinkets. A number of theſe *ſanctuaries* are diſperſed all over *Barbary*, and are uſually places of refuge; where there is kept up great hoſpitality, eſpecially for *pilgrims* and perſons in diſtreſs. In the *Levant* theſe ſaints are called *Sheeks*, which word properly ſignifies *elders*.

procured

procured. The firſt of theſe villages was probably the *Lemnis* of the *Itinerary*.

The *Tingitanians* have upon the banks of the *Mullooïah*, in the road betwixt *Fez* and *Tlem-ſan*, a well-fortified caſtle, with a garriſon of a thouſand men. They have another at *El-Joube*, *i. e.* the *ciſterns*, XX M. further to the eaſtward. In the wars betwixt the late *Muley Iſhmael* and the regency of *Algiers*, they were both of them of the greateſt conſequence; as they ſtill continue to be very ſerviceable in awing the *Ang-gadd* and other factious clans of *Arabs*; inhabitants unworthy of ſo delicious and fruitful a country. *The caſtle of the* Mullooïah, *and* El-Joube.

Wooje-da, the *Guagida* of *Leo*, is the frontier town of the *Weſtern Moors*, and lies about the half way betwixt *El-Joube* and *Tlem-ſan*. Woojeda *or* Guagida.

To the Southward is the deſert[a] of the *Ang-gadd*, whoſe numerous and warlike offspring extend their hoſtilities and encampments to the very walls of *Tlem-ſan*; and to the Northward, nearer the ſea, we have, together with a celebrated intermitting fountain, the mountainous and rugged diſtrict of *Beni Zeneſſel*, (or *Jeſneten*, as *Leo* calls them) a no leſs powerful tribe of *Kabyles*; who, ſecure in their numbers and ſituation, have not hitherto ſubmitted to the *Tingitanians*. *Ptolemy's Chalcorychian* mountains, the ſeat of the ancient *Herpiditani*, had probably this ſituation. *The* Ang-gadd. Beni Zeneſſel, *or* Herpidileni.

We ſhould not leave *Tingitania* without obſerving, that, during the long reign of the late *Muley Iſhmael*, *Theſe*, no leſs than the other diſtricts, more immediately influenced by the *Capital*, were under ſuch ſtrict government and regulation, that, notwithſtanding the number of *Arabs* who are every where in the way, intent, every one of them, upon plunder and rapine; yet *a child*, (according to their manner of ſpeaking) *might ſafely carry a piece of money in his open hand from one end of the kingdom to another*, whilſt the merchant travelled with his richeſt commodities, from one fair and ſea-port to another, without the leaſt danger or moleſtation. *Safe travelling in* Tingitania.

[a] By deſert or wilderneſs, the reader is not always to underſtand a country altogether barren and unfruitful; but ſuch only as is rarely or ever ſown or cultivated; which, tho' it yields no crops of corn or fruit, yet affords herbage more or leſs for the grazing of cattle; with fountains or rills of water, though more ſparingly interſperſed than in other places. The *wilderneſs* or *deſert* where our *Saviour* was tempted, with ſeveral others mentioned in Scripture, was of this nature and quality.

CHAP. III.

Of that part of the Sea-Coaſt *of the* Mauritania Cæſarienſis, *called at preſent the* Weſtern Province, *or the* Province of Tlemſan.

The general deſcription of this province.

LEAVING *Maiſearda* and *Woojeda* at ſome diſtance to the weſtward, we enter upon *Twunt* and the mountains of *Trara*; a beautiful knot of eminences, which furniſh the markets of *Tlemſan* with all manner of fruit. Theſe are the confines of this province to the weſt, as the river *Ma-ſaffran*, at near CC M. diſtance, to the eaſt. The whole of it is almoſt equally diſtributed into mountains and valleys; and, were it better ſupplied with rivers and fountains, it would be more delightful, as it was in the time of *Salluſt* (*Bell. Jug.* p. 278.) accounted a more fertile and populous diſtrict than the eaſtern part of this kingdom.

The mountains of Atlas.

It will be difficult, from the uniformity and the little interruption there is among the mountains of this province, to diſtinguiſh that particular chain of them, which may be taken for the continuation of mount *Atlas:* a point of geography that muſt be always regarded. However, as the mountains of *Sachratain* behind *Tlem-ſan*, lye the neareſt to the *Sahara*, and are continued, quite through this province, by thoſe of *Sout el Tell*, *Tafarowy*, *Ellcalla*, *Benizerwall*, *Elcadara*, and *Miliana*; theſe, I preſume, as they are all along remarkably conſpicuous, from the great number and variety of plains which lye on each ſide of them, ſo they ſeem to lay the greateſt claim to that celebrated ridge of mountains.

The mountains of Trara, *&c.* Cape Hone, Ras Hunneine, *or* Mellack.

About XIV M. from *Twunt*, the mountains of *Trara* ſtretch themſelves into the ſea, and make one of the longeſt and moſt conſpicuous forelands to the eaſtward of the *Mullocïah*. It is called at preſent *Cape Hone*, *Ras Hunneine*, and *Mellack*; and was the μέγα ἀκρωτήριον, or the *Great Promontory* of *Ptolemy*. The meridian of *London*, which likewiſe, in laying down the maps, is our firſt meridian, falls in pretty nearly with this *Cape*.

Μέγα ἀκρωτήριον, ſ. MAGNUM PROMONT.

Tafna, *or* Siga.

Six leagues to the E. of this *Cape*, is the mouth of the river *Tafna*, the ancient *Siga*[1], made up of the *Iſſer*, the ancient *Aſſanus*, the *Barbata*, and other ſmaller rivulets. On the weſtern banks are ſeveral

[1] *Scylac. Perip.* p. 46. Ed. Oxon. *Ptol. Geogr.* l. iv. c. 2. *Plin. Nat. Hiſt.* l. v. c. 2.

ancient

ancient ruins, called *Tackumbreet*; where the city *Siga*, or *Sigeum*, once the metropolis of *Sciphax* and other *Mauritanian* kings, was situated. We may well imagine, that from the moſt early times, great encouragement muſt have been given to trade and navigation, inaſmuch as theſe princes choſe this for their place of reſidence, which has no beautiful proſpects or fertility of ſoil to recommend it; which likewiſe, from the influx and frequent inundations of the adjacent rivers, is far from being the moſt wholeſome and agreeable. The *Wool-haſa* are inhabitants of this neighbourhood. Tackumbreet, f. *civitas* Siga.

Over againſt *Takumbreet*, there is a ſmall iſland, the *Acra* of the ancient geography. This forms the port of *Harſh-goone*; where veſſels of the greateſt burthen may lie in ſafety. *If.* Acra, *f.* Harſh-goone.

Five leagues from the *Tafna*, is the mouth of the *Wedel Mailah*, i. e. the *Salt-river*. This was the *Flumen ſalſum* of the *Itinerary*; the ſame appellation, expreſſive of the ſaline quality of its water, having been given to it in all ages, and by all authors; yet, notwithſtanding this circumſtance, ſuch is the want of good water in the neighbourhood, that the *Arabs*, by long cuſtom and habit, are reconciled to the taſte, and drink it without reluctance. Wed el Mailah, *or* FLUMEN SALSUM.

The *Si-nan*, the moſt conſiderable of the brooks which fall into the *Wed* * *el Mailah*, has it's ſources at no greater diſtance than the ſouthern confines of the plains of *Zei-doure*. It glides in a variety of beautiful windings through this fruitful diſtrict, and is known, as moſt of the rivers of this country are, by ſeveral names, according to the remarkable places that are viſited by them. It was near the banks of this river, which might be occaſionally ſwelled, where the elder *Barbaroſſa* ſtrewed about his treaſure, when he was purſued by the victorious *Spaniards*; his laſt, though ineffectual, effort to retard the purſuit of his enemies. The *Wed el Mailah*, a little after it is united with the *Si-nan*, diſcharges itſelf into the *Harſh-goone*. *The* Si-nan.

* *El Marques* [*de Comares*] le [*el Barbarroja*] alanço ocho leguas de *Tremecen*, antes de paſſar a un grande rio que ſe dize *Huexda*. [*I ſuppoſe a corruption only of* Wed] *Barbarroja* q̄ vido al *Marques* a ſus Eſpaldas y tan cerca que ya venian los Chriſtianos rebueltos con ſus Turcos matando y degollando, dava ſe prieſſa por paſſar en toto caſo el rio y ſalvarſe. Y para mejor lo poder hazer y entretener al enemigo, uſo de un lindo eſtratagema de guerra (ſi lo huuiara con otra gente) porque *mando ſembrar muchos vaſos de oro y de plata, muchas joyas y mucha moneda de que yuan todos cargados, con muchas otras coſas, y ropas muy precioſas:* pareciendole que topando los Chriſtianos con eſto, la cobdicia los harta entretener, para cogerlo, y anſi tendria tiempo para el y ſus Turcos poder huyr y paſſar aquel rio a ſu ſalvo, &c. *Epitome de los Reges de Argel.* cap. i. 11. p. 54. p. *Diego de Haedo*, &c. Valladolid. 1612. Pour les [Chriſtiens] arreſter *il laſſoit couler de tems en tems de l'or et de l'argent par le chemin.* Marmol. l. v. c. 11. p. 341.

The Iſlands Ha-beeba, *and the* Wed el Caſaab.

Paſſing by the two iſlands *Ha-beeba*, the leſſer of which lies over-againſt the *Wed el Caſaab*, or river of *Canes*, a ſmall ſtream, we double *Cape Falcon*, as our mariners call it; or, as it is called by the *Moors*, *Ras el Harſhfa*, i. e. *The rugged head-land.* When I paſſed by this *Cape*, in the month of *December*, ſeveral plats of ground on each ſide of it were ſown with wheat and barley; but the *Promontory* itſelf appeared to be rocky and barren. It may be diſputed therefore, from theſe tokens of fertility in the adjacent country, whether *this* is the *Metagonium* of *Strabo*, as it has been taken by ſome modern geographers. For though the ſituation indeed may be oppoſite to *Carthagene*, or *Carthago Nova*, yet the diſtance being little more than XC M. is not one third part of *Strabo's* three thouſand furlongs. There is on the eaſtern ſide of this *Cape*, a fine ſandy bay, expoſed only to the N.E. winds; which the *Moors* call the port of *Ras el Harſhfa*; where the *Spaniards* landed, with little moleſtation, in their late fortunate expedition (A. D. 1732) againſt *Oran*.

Cape Falcon, *or* Ras el Harſhfa,

where the Spaniards *landed.*

Mers' el Kebeer, *or the* PORTUS MAGNUS.

Two leagues farther, is the *Mers' el Kebeer*, i. e. the *Portus Magnus* or *Great Port* of the *Romans*; ſo named, as *Pliny* has juſtly obſerved, from the largeneſs and capacity of it. This port, which in the *Spaniſh* hiſtory is called (by a corruption of the *Arabic* name) *Mer el Guiver*, or *Mers' el Cabir*, is formed by a neck of land, which advances almoſt a furlong into the bay, and thereby ſecures it from the N. and N.E. winds. The caſtle, built for the defence of it, was more remarkable, when I ſaw it, for ſpaciouſneſs and extent, than for ſtrength and beauty; though a great part of it, particularly to the W. was, with great art and contrivance, hewn out of the natural rock.

The ancients place the Salſum Flumen *and the* Portus Magnus *at too great a diſtance from each other.*

The author of the *Itinerary* aſſighs CVII *Roman* miles for the diſtance between this port and the *Flumen Salſum*; whereas, in fact, it will not amount to LX. For if we take the *Mers' el Kebeer* for the *Portus Magnus* of the ancients, and the *Wed-el Mailah* for the *Salſum Flumen*, (as the tradition of the ſame appellations, from time immemorial, may be a ſufficient proof) we ſhall have in *them* a clear demonſtration, how little we are, in ſome inſtances, to depend upon the diſtances and ſituations of places, as they are tranſmitted down to us from Antiquity.

Warran, *or* Oran; *the ſtrong ſituation of it.*

Five M. to the S.E. of the *Great Port*, and LIV. to the N.N.E. of *Tlemſan*, is *Warran*[1], commonly called *Oran*, a fortified city of about a mile in circumference. It is built upon the declivity, and near the

[1] *Oranum* variis nominibus vocatur à recentioribus, nam alii *Madaurum*, alii *Aeram*, *Auranum* nonnulli vocant; *Afri* hodie *Guharan* appellant. Omnia autem hæc nomina locum acclivem, [*from* وعر wah-ar *(we may ſuppoſe) that ſignifies a place very difficult to be come at*] & ventis expoſitum ſignificant. *Gomecius de rebus*

foot

foot of a high mountain, which overlooks it from the N. and N.W. and, upon the ridge of this mountain, there are two castles, that command the city on the one side; and the *Mers' el Kebeer*, on the other. To the S. and S.E. there are two other castles, erected upon the same level with the lower part of the city, but are separated from it by a deep winding valley, which serves it as a natural trench on the S. side; where likewise, at a little distance, there is a very plentiful spring of excellent water. The rivulet, formed by this fountain, conforms its course to the several windings of the valley; and, passing afterwards under the walls of the city, liberally supplies it with water. We see, at every opening of the valley, such a pleasingly confused view of rocky precipices, plantations of orange trees, and rills of water trickling down from them, that nature rarely displays herself in a greater variety of prospects and cool retreats. Near the fountain, there is also another castle; which not only guards the *Mattamores* that are dug under the walls of it, but is, at the same time, an important defence to the city. From all these circumstances, *Oran* must undoubtedly be a place of great strength, as well by nature as art, much more tenable than *Algiers*; neither could it have been so easily taken, if an unaccountable panic had not seized upon the Bey, otherwise a very valiant man, in abandoning it, upon the first landing of the *Spaniards*, without shutting the gates, or shewing the least preparation to oppose them.

The buildings of the Spaniards.

The *Spaniards*, when they were first masters of the place, built several beautiful churches, and other edifices, in the manner and style of the *Roman* architecture, though of less strength and solidity. They have imitated the *Romans* further, in carving upon the frizes, and other convenient places of them, several inscriptions, in large characters, and in their own language.

Geeza, *the* Quiza Colon.

I met with no *Roman* antiquities at *Warran*; or at *Geeza*, a small village, within half a furlong of it to the W. The latter has no small affinity with the *Quiza* [*Colonia*] of the ancients, which is placed by them immediately after the *Great Port*; and therefore not far, as we may conjecture, from this position.

No river where the Ancients place the Mulucha.

Pliny fixes his *Mulucha*, and *Ptolemy* his *Chylemath*, (both which have been already treated of) betwixt *Quiza* and the *Great Port*. In travelling indeed betwixt the *Great Port* and *Warran*, we pass over a very small rill of water, which has its sources at a furlong's distance from the sea; but there is no river, properly so called, nearer than

gestis Fr. Ximenii. l. iv. p. 1022. Franc. 1603. ☞ * مطمرلة Fovea subterranea, crypta, in qua frumentum reconditur. Vid. *Gol.* in voce. *A pit under ground, wherein the* Arabs *deposite their corn.*

the

the *Wed el Mailah*, on the one ſide; or the *Sigg*, on the other. This river therefore, which has hitherto ſo much perplexed the ancient as well as the modern geography, appears to be altogether imaginary; eſpecially in this ſituation, where we are directed to look after it.

Cape Ferratt *or* Meſaff.

Leaving the little village of the *Caraſtel*, a clan of *Kabyles*, on our right hand, we arrive at *Cape Ferratt*, the *Meſaff* of *Edriſi*. This promontory is remarkable for a high rock, which, ſtanding out at a ſmall diſtance from it, in the ſea, aptly repreſents a ſhip under ſail.

The port of Arzew.

Twelve miles to the S.S.E. of this *Cape*, is the port of *Arzew*, called by the *Moors*, the port of the *Beni Zeian*, after the name of the neighbouring *Kabyles*, who were formerly a conſiderable community. It is of the ſame figure, though more capacious than the *Great Port:* and, according to the liberty of expreſſion in the former ages, might much better deſerve the epithet of *divine*, than the ports I have mentioned, at *Ras el Harſh-fa*. *Ptolemy*, we are ſure, ſituates his *Deorum Portus* betwixt *Quiza* and *Arſenaria*; which can be no other than this, provided *Geeza* or *Warran* is the ancient *Quiza*, as *Arzew* is, without doubt, the ancient *Arſenaria*.

The Portus Deorum *of* Ptolemy.

Arzew, *The* ARSENARIA.

Arzew is at the diſtance of three *Roman* miles from this port, as *Pliny* places his *Arſenaria*. The country, for ſome miles behind it, is made up of rich champain ground: but towards the ſea we have a range of ſteep rocks and precipices, which muſt have been always a natural ſafeguard to it, in that direction. The water, which the inhabitants uſe at preſent, lies lower than the ſea; a circumſtance that may account for the brackiſhneſs of it. However, to ſupply it, as we may well imagine, with wholeſomer water, the whole city was formerly built upon ciſterns, of which ſeveral ſtill remain and ſerve the inhabitants to dwell in. A great many capitals, baſes, ſhafts of pillars, and other ancient materials, lie ſcattered all over the ruins. A well finiſhed *Corinthian* capital of *Parian* marble ſupports the ſmith's anvil; and, in the *Kaide's* houſe, I accidentally diſcovered a beautiful *Moſaic* pavement, through the rents of a ragged carpet that was ſpread over it. Several ſepulchral inſcriptions likewiſe, with the names of *Regulus*, *Saturninus*, and *Gandus*, ſtill remain in a *Hypogeum*, fifteen foot ſquare, built very plain, without either niches or *columbaria*.

The ſalt-pits *of* Arzew.

Five miles from the ſea-coaſt are the *ſalt-pits* of *Arzew*, from whence the neighbouring communities are ſupplied with ſalt. This commodity, from the facility of digging it, the ſhortneſs afterwards of the carriage, and the advantage of the adjacent port, would, under

der any other than a *Turkiſh* government, be a branch of trade as invaluable, as the pits themſelves are inexhauſtible.

Under ſome ſteep rocky cliffs, five miles to the E. of *Arzew*, we paſs by two little ports; one of which opens towards *Muſty-gannim*, the other towards the port of *Arzew*. Both ſeem to have been protected by one and the ſame fort, that is ſituated above them; as they were both very conveniently ſupplied with water by a ſmall conduit, from an adjacent mountain. *Two galley-ports, with a fort.*

At a little diſtance from theſe ports, the river *Sigg*, or *Sikke*, empties itſelf into the ſea. This might well be taken for the ancient *Siga*, provided an affinity in ſound was only to direct us; provided likewiſe the old geographers had not been unanimous in placing it further to the W. where we have the river *Tafna*. As therefore the fertile plains of *Midly*, through which it flows, may be conſidered as a large garden, canton'd out into a number of partitions; and, as each of theſe partitions has a branch, *rivus* [3] or *incile* of the *Sikke*, always ready to overflow it; we may deduce the name rather from [ساقى] *ſikk*, or *ſakeah*, whereby the *Arabs* ſignify ſuch artificial drains and trenches, as this river, upon occaſion, may be derived into. *The river Sigg;*

The *Habrah*, another conſiderable river, falls into the *Sigg*. It is ſo called from a numerous tribe of *Arabs* who live upon the banks of it. The conflux of the *Sigg* and *Habrah* form a ſtream as big as the *Charwell* near *Oxford:* the mouth whereof is called *El-muckdah*, or *the Ford*; which, except in the rainy ſeaſon, is entirely drunk up by the ſand, and leaves the paſſage without water. This, in all probability, was the *Cartennus* of *Ptolemy*. *and* Habrah; *or the ancient* Cartennus.

Maſagran or *Mazachran*, a ſmall mud-walled town, is ſituated upon the weſtern declivity of a range of hills XII M. to the N. E. of the *Cartennus*, and within a furlong of the ſea. The name ſeems to denote a place abounding with water [4]; a circumſtance indeed which very juſtly correſponds with the ſituation. Maſagran.

Muſty-gannim, the adjacent city, ſo called from the ſweetneſs of the mutton, that is fed in that neighbourhood, is built in the form of a theatre, with a full proſpect of the ſea; but, in every other direction, it is cloſed up by a round of hills that hang over it. It is ſomewhat bigger than *Warran*, and takes place after *Tlem-ſan*, among Muſty-gannim.

[3] Incilia, *foſſæ ſunt quæ in agris fiunt ad aquam deducendam; dicuntur & derivationes de Rivo communi factæ.* Vid. *Columel. in voce* Incilia.

Claudite jam rivos, *pueri*, ſat *prata biberunt.* Vir. Ecl. iii. ℣. 111.

[4] *Vid.* Gol. in voce سجر (*aqua implevit*, ſc. fluvium) & زخر (*exundavit* alveus.)

the

the cities of this province. The inhabitants have a tradition, (and ſome vacant ſpaces ſeem to confirm it) that the preſent *Muſly-gannim* is made up of ſeveral contiguous villages. In the middle of it, near one of theſe vacancies, are the remains of an old *Mooriſh* caſtle, erected, as appears from the faſhion of it, before the invention of fire-arms The N. W. corner, which overlooks the port, ſuch an unſafe one as it is, is ſurrounded with a ſtrong wall of hewn ſtone, where there is another caſtle built in a more regular manner, with a *Turkiſh* garriſon to defend it. But *Muſly-gannim* being too much expoſed to every troop of *Arabs*, who have the courage to make themſelves maſters of the hills behind it, the principal ſtrength and defence of it lies in a citadel, that was lately erected upon one of theſe eminencies, and which has a full command of the city and of the country round about it.

In travelling betwixt *Maſagran* and *Muſly-gannim*, we are entertained with the proſpect of a number of gardens, orchards, and country-ſeats, that are ranged, in a beautiful variety, all along the ſea-ſhore. A chain of hills bounds theſe to the S. and S. E. which not only ſhelters them from the hot ſcorching winds, that ſometimes blow in thoſe directions, but break out every where in fountains to cheriſh and refreſh them. The *Alhenna*, which I ſhall have further occaſion to ſpeak of, is here cultivated to advantage.

Muſty-gannim *or* Maſagran, *The* CARTENNÆ.

The ſtrength and beauty, particularly of the walls of *Muſly-gannim*, to the N. W. may well allow us to ſuppoſe them to have been formerly a portion of ſome *Roman* fabrick. For both *Muſly-gannim* and *Maſagran* are ſo copiouſly ſupplied with water; they are ſo commodiouſly ſituated with regard to the fertile and extenſive lawns that are ſpread far and near behind them; they enjoy beſides ſuch a delightful proſpect of the ſea, and of the rich maritime country, that lies in view, to a great diſtance, on each ſide; that, without doubt, they were ſtations too valuable to have been neglected by the *Romans*. *Pliny* and *Ptolemy* place their *Cartenna* in this direction; and, in the *Itinerary*, we have the ſame diſtance betwixt *Arſenaria* and *Cartenna*, that I find betwixt *Arzew* and theſe places. One or other of them therefore, or both, might have formerly made up this colony: for, conſidering that their ſituations are nearly contiguous, and that the interjacent plantations belong indifferently (as they perhaps always did) to them both, there is ſome probability at leaſt that they had likewiſe the ſame intereſt, and were accordingly one and the ſame community, under the name *Cartennæ*, as *Ptolemy* writes it in the plural.

Under

Under *Jibbel Diſs*, or *Cape Ivy* (according to our modern ſea-charts) betwixt the encampments of the *Bookhammel* and the *Magrowah*, at xv M. from *Muſty-gannim*, is the mouth of the river *Shelliff*, the *Chinalaph* of the old geography. This is the moſt noted, as well as one of the largeſt rivers of this kingdom: when I croſſed it, in autumn, it was nearly of the bigneſs of the *Iſis*, united with the *Cherwell*. *Abulfeda* aſcribes to the *Shelliff* the ſame property with the *Nile*, of augmenting its ſtream in the ſummer ſeaſon: but I am perſuaded the leaſt occaſion could never have been given for any conſtant or regular appearance of that kind. The ſources of it, which are LXX M. to the S. E. are called *Sebbeine Ain* (i. e. the *ſeventy fountains*;) and a little way to the northward is the *Nahar* (i. e. river) *Waſſel*, the firſt tributary rivulet to the *Shelliff*. In ſtretching afterwards towards the N. E. it receives the *Midroe*, ſo called from a diſtant *Gætulian* village, now in ruins. *Tuckereah*, the ancient *Tigava*, lies near the W. banks of the *Midroe*. The *Shelliff* continuing ſtill in the ſame direction, loſes itſelf in the *Pond of Titterie* (or *Titterie Gawle*, according to the *Turkiſh* name;) and, recovering itſelf afterwards, runs directly towards the ſanctuary of *Seedy ben Tyba*, a little below the city of *Medea*. From hence it runs all the way nearly, in the ſame parallel with the ſea-coaſt, receiving all along ſeveral large contributions, which will be hereafter taken notice of. The whole courſe of the *Shelliff*, from the *Sebbeine Ain* to *Jibbel Diſs*, i. e. *The mountain of ſpartum*, or *reedy graſs*, is little ſhort of CC M.

The river Shelliff *or* Chinalaph: *its courſe and ſources.*

After we have touched at the *Zour el Hamam*, i. e. the *Pigeon Iſland*, and paſſed under the ſhade of *Jibbel Miniſs*, a mountain of ſalt, the rich poſſeſſion of the *Weled Younouſe*; we come to *Tniſs* or *Tennis*, which has a low dirty ſituation, (as the name, from טִין *mud*, may probably import) at a ſmall diſtance from the ſea. Before the *Turkiſh* conqueſts, it was the metropolis of one of the petty royalties of this country; though a few miſerable hovels are all that remains of it at preſent. A little brook runs winding by it, which afterwards empties itſelf into the ſea, over-againſt a ſmall adjacent iſland. *Tniſs* has been long famous for the many loadings of corn which are ſhipped off from thence to *Chriſtendom:* but the anchoring-ground (for a harbour we cannot call it) that lies before it, being too much expoſed to the north and weſt winds, is the occaſion that veſſels are frequently caſt away, (as they are likewiſe at *Hammoſe*, *Magrowa*, and other dangerous roads on this ſide the *Shelliff*) unleſs they fall in with a ſeaſon of calm weather.

Tniſs, *or* Tennis.

Sanſon, with other geographers, make *Tniſs* to be the ancient *Jol* or Julia Cæſarea,

Tniſs *not the*

or *Julia Cæſarea*; though the iſland which I have mentioned, ſeems to be the only circumſtance in favour of that opinion.

The character of the inhabitants.

The *Moors* have a tradition, that the *Tniſſians* were formerly in ſuch reputation for ſorcery and witchcraft, that *Pharaoh* ſent for the wiſeſt of them to diſpute miracles with *Moſes*. It is certain, that they are the greateſt cheats of this country; and are as little to be truſted to as their road. *Hammet Ben Uſeph*, a late neighbouring *Ma-rab-butt*, has left us this rhapſodical character both of the place and its inhabitants:

Tennis		Tennis
Mabaneah ali dennis		*Is built upon a dunghill*;
Mawah Shem		*The ſoil of it is ſtinking*;
Ma dim	i. e.	*The water of it is blood*;
Wa howa ſim		*And the air is poiſon*;
Wa *Hamet Ben Uſeph* ma dakkul thime.		*And* Hammet Ben Uſeph *did not come there.*

Cape Nakkos: *ſ.* Prom. Apollinis.

Nakkos, the large adjacent promontory, formerly the *Promontorium Apollinis* of *Ptolemy*, is ſo called, from a grotto that is formed below it in the ſhape of a bell. In advancing towards this cape from the coaſt of *Spain*, it appears like the head of a wild boar. We fall in afterwards with ſeveral little iſlands, where there is good ſhelter for ſmall veſſels; and upon the continent, over-againſt them, are the *Daſhkrahs* of the *Beni Headjah* and *Beni Howah*. A little further to the S. are the *Goryah* and other troubleſome *Kabyles*; which have below them, upon the coaſt, *Dahmuſs* and *Breek*, formerly two cities of the *Romans*.

Sherſhell, *the* Jol *or* Julia Cæſarea.

Sherſhell, the next place of note, was the *Jol* or *Julia Cæſarea*, ſo famous in hiſtory. When I ſaw it (A. D. 1730) it was in great reputation for making ſteel, earthen veſſels and ſuch iron tools as are wanted in the neighbourhood: but a few years afterwards (1738) it was entirely thrown down by an earthquake. The ruins, upon which this town was ſituated, are not inferior in extent to thoſe of *Carthage*; and we may likewiſe conceive no ſmall opinion of its former magnificence, from the fine pillars, capitals, capacious ciſterns, and beautiful *moſaic* pavements that are every where remaining.

The aqueduct.

The water of the river *Haſhem*, according to its preſent name, was conducted hither through a large and ſumptuous aqueduct, little inferior to that of *Carthage* in the height and ſtrength of its arches; ſeveral fragments of it, ſcattered among the neighbouring valleys to the S. E. continue to be ſo many inconteſtable proofs of the grandeur and beauty of the work. Beſides theſe, there are two other leſſer conduits, which continue perfect and entire; and, plentifully ſupplying

plying *Sherſhell* with excellent water, (for that of the wells is brackiſh) may be conſidered as two ineſtimable legacies of the ancients.

Nothing certainly could have been better contrived, either for ſtrength or beauty, than the ſituation of this city. A ſtrong wall, forty foot high, ſupported with buttreſſes, and winding itſelf near two miles through the ſeveral creeks of the ſea-ſhore, ſecured it from all encroachments from the ſea. The city, to the diſtance of two furlongs from this wall, lies upon a level; and afterwards, riſing gradually for the ſpace of a mile, to a conſiderable elevation, (implied in the ancient name *Iol* [5]) ſpreads itſelf over a variety of hills and vallies, and loſes intirely the proſpect of the ſea. One of the principal gates, this way, is placed about a furlong below the ſummit of theſe hills, and leads us to the rugged poſſeſſions of the *Beni Menaſſer*; and, of the other two, near the ſea-ſhore, the weſtern lies under the high mountains of the *Beni Yſirah*, and the eaſtern under that of the *Shencuah*. *The ſtrength and beauty of the ſituation.*

As *Sherſhell* is thus ſhut up in the midſt of mountains and narrow deſiles, and all communication with it may be eaſily cut off, whenever the neighbouring tribes are diſpoſed to be mutinous and troubleſome; as it frequently happens even to this day. And this circumſtance will afford us one argument, that *Sherſhell* was the *Julia Cæſarea*, by interpreting *Procopius's* [6] deſcription of it in our favour, *viz. That the* Romans *could only come at* Cæſarea *by ſea, acceſs by land being rendered impracticable, as all the paſſes were then ſeized upon by its neighbours.* *The difficult acceſs to it.*

They have a tradition, that the ancient city was deſtroyed, as the new one was lately, by an earthquake; and that the port, formerly very large and commodious, was reduced to the miſerable condition wherein we find it at preſent, by the *arſenal* and other adjacent buildings, being thrown into it by the ſhock. The *Cothon* [7], that had a communication with the weſtern part of the port, is the beſt proof of this tradition. For when the ſea is calm, and the water low (as it frequently happens after ſtrong S. or E. winds) we then diſcover all over the *area* of it ſo many maſſy pillars and pieces of great *Deſtroyed by an earthquake.*

[5] Ab עַל vel *Syr.* עֵילִי vel עִלִּי quod *celſum* ſonat. *Boch. Chan.* l. i. c. 34. unde *Ili*beris, *Ili*turgis, civitates quæ altum ſitum habent.

[6] Ες ἣν [Καισάρειαν] Ρωμαῖοι ναυσὶ μὲν εἰσαεὶ ῥᾴλλον· πεζῇ δὲ ἴέναι ἔκ εἰσι δυνατοὶ Μαυρουσίων ἐν ταύτῃ ᾠκημένων τῇ χώρᾳ. *Procop.* l. ii. *de Bell. Vand.* c. 20. in fine.

[7] *Servius* in illud *Virgilii Æneid.* i. *Hic Portus alii effodiunt.* Portus non naturales, ſed arte & manu factos *Cothonas* vocari aſſerit. Idem ſcribit & *Feſtus*. viz. à קטם *katam* vel *Phœnicio* more *katham* incidere, unde קטים *kathum* inciſus & קטים *kithum* vel קטימה *kethima* Inciſio: ita etiam apud *Arabes*. Vid. *Boch.* ut ſupra, cap. xxiv. & *Buxt. in voce.*

walls, that it cannot well be conceived, how they ſhould come there, without ſuch a concuſſion.

The port, with an iſland before it. The port is nearly in a circular form, of two hundred yards in diameter: but the ſecureſt part of it, which, 'till of late, was towards the *Cothon*, is now filled up with a bank of ſand, that daily increaſes. However, there ſtill lies in the mouth of it, a ſmall rocky iſland, which at preſent, is the main ſhelter and defence againſt the northern tempeſts. This iſland therefore, and theſe large and ſumptuous remains of an ancient city, will afford other arguments for ſuppoſing *Sherſhell* to be the *Iol* or *Julia Cæſarea*. For ports are very rare upon the coaſt of *Barbary*; eſpecially, in this ſituation, where we are to look for *Cæſarea*; and an haven, with an iſland at the entrance into it, is only to be met with at *Siga* or *Tackumbreet*; a place at too great a diſtance to the W. to be taken for *Cæſarea*. *Tniſs*, where *Sanſon*[1] and others have placed the *Julia Cæſarea*, has indeed an iſland before it, yet without the leaſt rudiments of a haven, or any heaps of ruins: *Algiers* likewiſe, the other city that is brought, by *Dapper* and later geographers, into the diſpute, was formerly in the ſame ſituation with *Tniſs*; its preſent port having been made, ſince the *Turkiſh* conqueſts, by *Hayradin Barbaroſſa*, A. D. 1530, who united the iſland that formerly lay before it, to the continent. The principal characteriſtic therefore, whereby the ancients deſcribe their *Iol Cæſarea*, cannot, with any propriety, be attributed to any other place than *Sher-ſhell*. Beſides in the *Itinerary*, *Cæſarea* is placed XXV M. from *Aquis* or *Aquis calidis*; which agrees very well with the diſtance there is betwixt *Sherſhell* and the *Hamam Melwart*, which will be hereafter deſcribed.

The mountains of the Shenooah. The country round about *Sher-ſhell* is of the utmoſt fertility, and exceedingly well watered by the *Naſſara*, *Billack*, and *Haſham*; neither are we to forget a beautiful rill of water, received into a large baſon of *Roman* workmanſhip, called *Shrub we krub*, i. e. *bibe et fuge*, *drink and away*, there being the like danger of meeting here with rogues and aſſaſſins, that the dog is ſaid to have had in meeting with the crocodile, in drinking of the *Nile*. Even the very mountainous parts, towards the ſea, the poſſeſſions chiefly of the *Shenooah*, are here barren as they frequently are in many other places, covered to the very ſummits of them, with a ſucceſſion of delicate plats of arable ground, here and there diverſified with plantations of apricot, peach, and other fruit trees. Nothing certainly can be more entertaining, than that variety of proſpects which we every where meet with in this delightful country.

[1] *Atlas Geogr.* vol. iv. p. 208.

The

The northern extremity of theſe mountains form a pretty large cape, called *Ras el Amouſhe*, the ſame with the *Battal* of *Edriſi*. Below it to the eaſtward is the *Iſland Barinſkell*, from whence, as they are fond of telling us, one of the neighbouring *Kabyles*, to avoid the fury of the *Algerines*, ſwam with a little child upon his back, as far as the river *Maſaffran*, at xx M. diſtance. A little lower is the *Mers' el Amouſhe*, or *Port of Amouſhe*, very ſafe in weſterly winds; after which we croſs the river *Gurmant*; and then fall in with a number of ſtone coffins, of an oblong figure, not unlike thoſe that are ſometimes found in our own iſland. A little farther to the E. under a riſing ground, are the ruins of *Tefeſſad*, or *'Tfeſſad*, called likewiſe *Blaid el Madoone*, which extend themſelves for the ſpace of two Miles along the ſea ſhore; though the breadth is not equal to one third part of the length. Tefeſſad, or Tipaſa.

Tefeſſad, by being ſituated XIII M. to the eaſtward of *Sherſhell*, appears to be the *Tipaſa* of the old geopraphy. For *Ptolemy*, in fixing *Tipaſa* 30′ to the E. and 10′ to the S. of *Cæſarea*, does not a little authorize this poſition. The author likewiſe of the *Itinerary*, in placing his *Tipaſa Colonia* XVI *Roman* M. to the eaſtward of *Cæſarea*, gives us the very ſame diſtance. *Tefeſſad* likewiſe, by an eaſy tranſition or the changing *f* into *p*, will have a ſound not very different ſtom *Tipaſa*.

Both at this place and *Sherſhell*, we meet with ſeveral arches and walls of brick, not commonly found in other parts of *Barbary*; eſpecially, where the work itſelf may be looked upon as *Roman*. The *bricks*, (from whence the *Moors* might have called it *Madoune*) are of a fine paſte and colour, two inches and a half thick, and near a foot ſquare. We have the following inſcription, upon a large pannelled ſtone, brought from hence to *Algiers*.

C. CRITIO. C. F.
QVIRIT. FELICI.
EX TESTAMEN
TO EIVS.

The ſea coaſt, from *Tefeſſad* to *Algiers*, to the breadth, for the moſt part, of two or three leagues, is either woody or mountainous; thereby ſecuring the fine plains of the *Mettijiah*, which lye behind it, not only from the more immediate influence of the northerly winds, but from the ſpray of the ſea, which is equally noxious. The *Kubber Ro-meah*, i. e. *the ſepulchre of the Chriſtian women*, called by the *Turks*, from the faſhion of it, *Maltapaſy*, or the *treaſure of the ſugar-* The Kubber Romeah.

loaf,

loaf, is ſituated upon the mountainous part of the ſea coaſt, VII M. to the eaſtward of *Tefeſſad*. According to the diſcoveries hitherto made, it is a ſolid and compact edifice, built with the fineſt free ſtone; the height whereof I computed to be a hundred foot, and the *diameter* of the *baſis* ninety: it is of a round figure, riſing with ſteps, quite up to the top, like the *Egyptian* Pyramids. This ſtructure therefore, in conſideration of the elegancy of the workmanſhip, and the beauty of the materials, appears to be much older than the *Mahometan* conqueſts; and may better be taken for the ſame monument, that *Mela* (c. vi.) places betwixt *Iol* and *Icoſium*, and appropriates to the *Royal Family* of the *Numidian* kings. Sepulchres of this kind, and in the like maritime ſituation, have been taken notice of, at other places, by ancient authors [1].

The river Ma-ſaffran.

A few miles from the *Kubben Romeah*, is the mouth of the *Maſſafran*, the eaſtern boundary of this province, a river very little inferior to the *Shelleff*. In paſſing through the ſeveral deep valleys of that part of *Mount Atlas*, where ſome of its branches have their fountains, it runs in ſuch a variety of mazes and turnings, that I croſſed it fourteen times in an hour. The name of *Maſaffran* [2], was probably attributed to it, from the tawny or *ſaffron colour* of it's water.

CHAP. IV.

Of the moſt remarkable inland places and inhabitants of the weſtern province, or the province of Tlemſan.

The ſituation of Tlem-ſan.

IF we return then to the weſtward; five leagues to the ſouthward of the mouth of the river *Tafna*, is the city *Tremeſen*, as the modern geographers write it; or *Telemſan* or *Tlem-ſan*, according to the *Mooriſh* pronunciation. It is ſituated upon a riſing ground, below a range of rocky precipices; the *Sachratain* (as we may take them to be) of *Edriſi*, theſe make a part of *Mount Atlas*;

Sachratain.

[1] *Pſylli* regis ſepulchrum in parte *Syrtium* majorum eſt. *Plin.* l. vii. cap. 2.

Κεῖνον δ' ἂν περὶ κόλπον ἴδοις ἐρικυδέα τύμβον,
Τύμβον ὃν Αρμονίης Κάδμοιό τε φῆμις ἐνίσπει. *Dionyſ. Per.* l. 390-1.

Τοῦ γὰρ τάφου (τοῦ Αἴαντος) τὰ πρὸς τὴν αἰγιαλὸν, ἔφασκεν τὴν τοῦ ἐπικλύσαι θάλασσαν, καὶ τὴν ἔσοδον πρὸς τὸ μνῆμα οὐ χαλεπὴν ποιῆσαι. *Pauſ. in Attic.* Han. 1613. p. 66. Καταβάσι δὲ ἐκ ἀκροπόλεως, μνῆμά ἐστι πρὸς θαλάσσῃ Λέλεγος. *Id. ibid.* p. 82. vid. annot. V. Cl. *Abr. Gronov.* in *P. Melam.*

[2] مزعفر *Mazafran*, fulvus; ex fulvo rubens. Vid. *Gol.* in voce.

and

and upon the firſt ridge of them, (for there is a much higher one to the ſouthward) we have a large ſtrip of level ground, that throws out, from every part of it, a number of fountains. Theſe, after uniting gradually into little rills, fall in a variety of *caſcades*, as they draw near to *Tlem-ſan*.

In the weſt part of the city, there is a large ſquare baſon of *Mooriſh* workmanſhip, two hundred yards long, and about half as broad. The inhabitants entertain a tradition, that formerly the kings of *Tlem-ſan* took here the diverſion of the water, whilſt their ſubjects were taught the art of rowing and navigation. But the water of the *Sachratain* (as *Leo* well obſerves) being eaſily turned off from its ordinary courſe, this baſon might have been rather deſigned for a *Reſervoir* in caſe of a ſiege: not to mention the conſtant uſe of it at all other times, in preſerving a quantity of water ſufficient to refreſh the beautiful gardens and plantations that lie below it. *Edriſi* takes notice of a ſtructure of this kind, where the fountain of *Om-Iahia* diſcharged itſelf.

Moſt of the walls of *Tlem-ſan* have been built, or rather moulded in frames (a method of building which *Pliny* informs us, (l. xxxv. c. 14.) was uſed by the *Africans* and *Spaniards* in his time. The mortar of which they conſiſt is made up of ſand, lime, and gravel; which, by being at firſt well tempered and wrought together, has attained a ſtrength and ſolidity not inferior to ſtone. The ſeveral ſtages and removes of theſe frames are ſtill obſervable; ſome of which are at leaſt one hundred yards in length, and two yards in height and thickneſs: whereby may be eſtimated the immenſe quantity of this compoſt that was made uſe of at one time. About the year 1670, *Haſſan*, then *Dey* of *Algiers*, laid moſt of this city in ruins, as a puniſhment for the diſaffection of the inhabitants; ſo that there is not remaining above one ſixth part of the old *Tlemſan*, which, when intire, might have been four miles in circuit.

Among the eaſtern part of theſe ruins, we meet with ſeveral ſhafts of pillars, and other fragments of *Roman* antiquities: and in the walls of a *Moſque*, made out of theſe old materials, we have a number of altars dedicated to the *Dii Manes:* but the following was the only legible inſcription.

D. M. S.
M. TREBIVS
ABVLLVS VIX.
AN. LV. M. TRE
BIVS IANVARIVS
FRATRI CARISSIMO
FECIT.

Gramaye

Gramaye[1] informs us, that *Rabbi Abraham* had ſeen ſeveral medals, dug up in this place, inſcribed TREMIS. COL. a city, I preſume, not known in the old geography: for *Timice*[2] (from ſome ſuppoſed affinity in the name,) has been generally, though with as little reaſon, taken for *Tlem-ſan*; whereas *Ptolemy's Lanigara* will better agree with this ſituation. There is ſome room likewiſe to conjecture, that *Tlem-ſan* may be an appellation[3] of *Arabic* extraction, on account of the rich arable ground which lies round about it.

Seedy Ebly's *baths.*

Upon the banks of the *Iſſer*, which is the eaſtermoſt branch of the *Tafna*, we fall in with the baths of *Seedy Ebly*; and after them we

The plains of Zeidoure.

enter upon the rich plains of *Zeidoure*, which extend themſelves through a beautiful interchange of hills and valleys, to the very banks of the *Wed el Mailah*, at xxx M. diſtance. Theſe have no ſmall affinity with the ζείδωρα of the *Greeks*; an appellation that denotes ſuch plenty and fertility as we every where meet with in theſe plains. About the mid-

The pinnacle of the ravens.

dle of them is the *Shurph el Graab*, or the *pinnacle of the ravens*, a high pointed precipice, with a branch of the *Si-nan* running by it.

Welled Halfa *and* Zaire.

The *Welled Halfa* and *Zaire* are the principal *Arabs* of this part.

Jibbel Karkar *M.*

Six leagues to the S. of the *Si-nan* is *Jibbel Karkar*, a high range of rocky mountains, which bend our proſpect to the South. Beyond

Beni-Smeal. Harar.

them are the mountains of the *Beni-Smeal*, with the *Arabs Harar*, a little beyond them in the *Sahara*. After them again, at the diſtance

The date villages of Figig.

of five days journey to the S.S.W. are the villages of *Figig*, noted for their plantations of *palm trees*, from which the weſtern parts of this province are ſupplied with figs.

The Shibkah.

Beyond the river *Mailah*, as far as *Warran*, is the *Shibkah*; as they call a very extenſive plain of ſandy ſaltiſh ground, which is dry in ſummer, but covered with water in the winter ſeaſon.

The Arabs Ammer.

The *Ammer* have their encampments in this neighbourhood, who from their long intercourſe with the *Spaniards*, whilſt they were maſters of *Warran*, retain ſeveral of their cuſtoms, and ſpeak their language with great propriety.

Arbaal, *and* Teſſailah, *the ancient* Aſtacilis.

To the ſouthward of the *Shibkah*, are the noted mountains of *Souf el Tell* and *Taffarowy*, which make part of *Mount Atlas*. The extenſive ruins of *Arbaal* lie on the one ſide, and thoſe of *Teſſailah* on the other. The latter, which from an affinity in the name, might belong to the ancient *Aſtacitis*, are ſurrounded with ſome of the moſt

Weled Aly.

fertile plains of this country, cultivated by *Weled Aly*, the implacable enemies of the *Weled Zaire* and *Halfa*.

[1] *Afric. illuſtr.* c. 25. [2] *Atl. Geogr.* vol. iv. p. 313.

[3] Derived perhaps from [تلع] *Telem*, (ſulcus terræ, ſpeciatim factus ſementis ergô) and [سن] *San*, (formare.) Vid. *Gol.* in voce.

Croſſing

Crossing afterwards, nearly in the same parallel, the rivers *Makerra* and *Hamaite*, (both of which fall into the *Sigg*) we come to *Mascar*, a collection of mud-walled houses, built in the midst of a plain, at ten leagues distance from *Mustygannim*. There is a little fort to defend it against any sudden revolt of the neighbouring *Arabs*, which is not garrisoned, as usual, by *Turks*, but by it's own inhabitants. The *Hashem*, who are the *Bedoweens* of this part of the country, are called *Jowaite*, or gentlemen; being excused from taxes, and serve only as voluntiers, when the *Algerines* want their assistance.

Maskar.

The Hashem.

Five leagues to the N.E. of *Mascar*, is *El Callah*, the greatest market of this country for carpets and *Burnooses*. This likewise, though larger than *Mascah*, is a dirty ill-contrived town, without either drains, pavement, or causeways; being built, as the name * imports, upon an eminence, and in the midst of other mountains, which make part of Mount *Atlas*. There are several villages of the same nature, and in the like situation round about it; all of them very profitably employed in the same woollen manufacturies. The *Turks* have here a small garrison and citadel; and, from some few large stones and pieces of marble of ancient workmanship, we may take it to have been formerly a city of the *Romans*; the *Gitlui* or *Apfar* perhaps of *Ptolemy*.

El Callah, *the* Gitlui *or* Apfar.

Travelling for some leagues under the shade of Mount *Atlas*, which turns here to the northward, we ford the river *Minah* [4], which falls into the *Shelliff* at *El Had*, near the plains of *Elmildegah*, where the *Swidde* have their chief abodes. *El Had* may denote a mountain, by way of eminence; such indeed as those of the *Benizerwall*, may be properly called; which run here parallel with the *Shelliff* [5]. This part of Mount *Atlas* is celebrated for the plenty, as well as delicacy of it's figs; such as those might be which *Cato* [6] threw down before the *Roman* senate, and were admired for their largeness and beauty.

The river Minah.

The Benizerwall.

Seedy Abid, a noted sanctuary, lies four leagues further, at a little distance only from the influx of the *Arhew* into the *Shelliff*. Overagainst it, on the other side of the *Shelliff*, is *Mazounah*, a dirty mud-walled village, without the least footsteps of any such *Roman* temples and sumptuous edifices as are mentioned by *Dapper* and *Marmol*. It is however as remarkable for its woollen manufacturies as either *Mascar* or *El Callah*; and is delightfully situated under the south side of Mount *Atlas*. The *Weled Seleema* are the neighbouring *Bedoweens*.

Seedy Abid.

Mazounah.

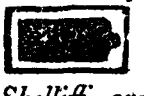
* قلة [*calah*] cacumen, vertex, &c. Vid. *Gol.* in voce. [4] Vid. *Atlas Geogr.* vol. iv. p. 211. [5] *Ibid.* [6] Vid. *Plut.*

Tagadempt. In the ſame meridian nearly with *Mazoana*, at eighteen leagues diſtance, is *Tagadempt*, the *Tergdent*, *Tigedent*, or *Tigdentum* of the *Atlas Geographus*; placed by *Sanſon* CX M. to the S. of *Oran*, and more than CXX to the S. E. of *Tlemſan*. Yet neither theſe diſtances nor directions will fall in with our *Tagadempt*; which by the ruins appears to have been a very large city, not long ago abandoned by the *Arabs*; who have taken their uſual care to leave us ſeveral tokens of their own humility and ignorance in architecture, at the ſame time they have pulled down and defaced whatever was beautiful and magnificent in the buildings of their predeceſſors. If this then ſhould be the *Tignident* of *Marmol*, [lib. v. c. 34.] (and there is no other place, as far as I could be informed, of the like name) it will be difficult to account for his making it the *Julia Cæſarea*; which undoubtedly was a maritime city, far removed from the poſition wherein we find the preſent *Tagadempt*. The *Weled Booker*, with their numerous *Douwars*, ſurround theſe ruins.

Weled Booker.

Memounturroy. Weled Spaihee. If we return again to the *Shelliff*; four leagues from *Seedy Abid*, is *Memounturroy*, as the *Weled Spaihee*, who live near it, call an old ſquare tower; formerly a ſepulchral monument of the *Romans*. This, like many other ancient edifices, is ſuppoſed to have been built over a treaſure: agreeably to which account, they tell us, theſe following myſtical rhimes were inſcribed upon it, by Prince *Maimoun Tizai*.

Maily		*My treaſure*
Fe Thully,		*Is in my ſhade;*
Wa Thully		*And my ſhade*
Fe maily.	i. e.	*Is in my treaſure.*
Etmah		*Search for it;*
La teis,		*Deſpair not:*
Wa teis		*Nay deſpair;*
La tetmah.		*Do not ſearch.*

Round about this monument, there are ſeveral maſſy blocks of marble, hollowed out in the faſhion of coffins  .

Sinaab, *or* Oppidonenſm. Five miles further, upon the banks of the *Shelliff*, are the ruins of *Memon* and *Sinaab*, formerly two contiguous cities. The latter, which might have been III M. in circuit, is by far the moſt conſiderable; though I ſaw nothing more of it than large pieces of walls, and capacious ciſterns.

Wan-naſh-reeſe *or* Zaracus. *Wan-naſh-reeſe*, the *Gueneſeris* of *Sanſon*, and the *Ganſer* of *Du Val*, lies eight leagues to the ſouthward of *Sinaab*. It is a high rugged mountain,

mountain, generally covered with ſnow, and on theſe accounts is one of the moſt noted land-marks of this country, diſtinguiſhing itſelf all the way, from *El Callah* to *Medea*, over a number of leſſer mountains ranged far and near about it. *Edriſi* was greatly miſinformed concerning the length of it, which he makes to be four days journey; inaſmuch as this will better agree with the view and proſpect we have of it, which is indeed at much more than that diſtance. This mountain was probably the *Zalacus* of *Ptolemy*; as *Sinaab*, from the poſition ſeven leagues to the northward, ſhould be his *Oppidoneum*.

The river of Plate.

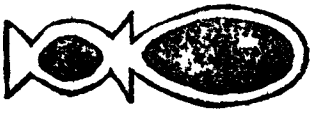
The *Wed el Fuddal*, or *river of Plate*, has its ſource in this mountain. In great rains many fleaks of lead ore (for which this mountain is famous) are brought down by the river; and being afterwards left upon the bank, and glittering in the ſun, gave occaſion to the name. *Abulfeeda*, with other later geographers, have been miſtaken in deducing the river *Shelliff*, inſtead of this branch of it only, from *Wannaſhreeſe*.

Weled Uxeire and Lataff.

The *Weled Uxeire* and the *Lataff* rove on each ſide of the *Fiddah*; and over-againſt the mouth of it, are the mud-walled villages of *Merjejah*, and of the *Beni Raſhid*; of which the latter made ſome figure in former ages, (*Atl. Geogr.* vol. iv. p. 210.) having had a citadel, two thouſand houſes, and a race of warlike inhabitants, who commanded this country as far as *El Callah* and *Maſcar*. But at preſent, the caſtle is in ruins; the two thouſand houſes and their large territories are reduced to a few cottages; and the people, from a like courſe of obedience to a jealous and ſevere government, are become equally timorous and cowardly with their neighbours. However their fruits, and particularly their figs, for which they were always famous, continue in the ſame repute, and may diſpute with thoſe of the *Beni Zerwall*, for ſize and delicacy of taſte. The rocky ſituation wherein the fig-tree ſo notably thrives in both theſe communities, is very agreeable to an obſervation of *Columella*; *Ficum*, (ſays he, l. xii. c. 21.) *frigoribus ne ſerito*; *loca aprica, calculoſa, glareoſa, interdum et* ſaxoſa *amat*.

El Herba.

Two leagues to the eaſtward of the *Beni Reſhid*, on the northern brink of the *Shelliff*, is *El Herba*, with a narrow ſtrip of plain fertile ground behind it. Here are ſeveral ſmall marble pillars, of a blewiſh colour, and good workmanſhip; but the capitals, which were of the *Corinthian* order, are defaced. There are, beſides, ſeveral coffins, like thoſe at *Memounturroy*; and upon one of the covers, which is ſcouped or hollowed in the upper part of the top of it, as if it were intended to receive a libation, we have this imperfect inſcription.



M. - MORI L. -
SECVNDIANI - -
VIC. XII ANNI - -
XIII LVCIO. - -
- - - - - - - - - - - - -
- - - - - - - - - - - - -
- - - - - - - - - - - - -

El Khadarah, *El Khada-rah*, the *Chadra* of *Edriſi*, lies thirteen miles only in a direct line from the river *Fuddah*, though, by the intervention of mountains, it is as much more in the courſe of travelling. It is ſituated upon a riſing ground, on the brink of the *Shelliff*, in the ſame meridian with *Sherſhell*; and appears, by the ruins, to have been three miles in circuit. A range of mountains, riſing immediately from the oppoſite banks of the *Shelliff*, ſhelter it from the N. wind; whilſt, at a mile's diſtance to the ſouthward, *Jibbel Dwee*, another high mountain, riſing up in a conical figure, *apart*, (*Mat.* xvii. 1.) like the celebrated *Mount Tabor*, ſupplies the beautiful little plains between them with a plentiful rill of excellent water. The perpetual verdure of theſe plains, might, in all probability, have communicated
or the Green. the name of *El Khadarah*, or *El Chuhd-ary*, i. e. *The Green*, to theſe ruins.

If then *Ptolemy's* authority is to direct us, we may take this place for his *Zucchabbari* (the ſame will be *Succabar* and the *Colonia Auguſta*, as we may ſuppoſe, of *Pliny*) placed in the ſame lat. and 50′ to the E. of *Sinaab*, or *Oppidoneum*. *Jibbel Dwee* likewiſe, upon the ſame ſuppoſition, will be the *Mons Tranſcellenſis*, which, according to *Ammianus* [1], hung over it.

A little to the E. of *El Khadārah*, are the remains of a large ſtone bridge; the only one, as far as I could learn, that was ever built over the *Shelliff*; notwithſtanding the great inconveniences which travellers are put to, eſpecially in the winter ſeaſon, of waiting ſometimes a whole month before they can ford.

El Herba. Seven miles to the E. of *El Khadārah*, at a little diſtance from the *Shelliff*, are the ruins of *El Herba*, another *Roman* town, of the ſame name and extent with what has been juſt now deſcribed. The

[1] *Ammian. Marcell.* l. xxix. c. 5.

ſame

ſame name occurs very frequently in this country; and is of the like import and ſignification with *pulled down* or *deſtroyed*. Here the *Shelliff* begins to wind itſelf through a plain, not inferior in extent and fertility, to any of this kingdom. The mountains likewiſe of *Atlas*, which, from the *Beni Zerwall* to *El Khadārah*, hung immediately over the *Shelliff*, retire now two leagues to the northward.

Maniana or *Maliana*, or *Miliana*, is ſituated upon theſe mountains, half a mile above this plain, and two leagues to the eaſtward of *El Herba*. It lies expoſed to the S. and S. W. promiſing a large ſcene of *Roman* buildings and antiquities at a diſtance; but the fatigue of climbing up to it, is badly recompenſed with the ſight only of a ſmall village, with the houſes of it tiled, inſtead of their being flat, and covered with *plaiſter* of *terrace*, according to the ordinary practice of the country. However, if the acceſs to it was leſs troubleſome, *Maliana* has ſeveral things to recommend it: for it is exceeding well watered from *Jibbel Zickar*, that hangs over it; it has a number of fruitful gardens and vineyards round about it; and, beſides all this, it enjoys a moſt delightful proſpect of the rich arable country of the *Jendill*, *Matmata*, and other *Arabs*, as far as *Medea*. In the ſpring ſeaſon the devotees of *Algiers*, *Bleda*, *Medea*, and the neighbouring villages, come, with great reverence, to kiſs the ſhrine of *Sede Youſeph*, the tutelar ſaint of this city.

Maniana, *or* Maliana, *The* MANIANA *or* MALLIANA.

There are ſeveral fragments at *Maliana* of the *Roman* architecture: and in a modern wall, made up of theſe ancient materials, we have a *Cippus*, with this inſcription:

Fragments of Roman *buildings.*

Q. POMPEIO CN. F.
QVIRIT. CLEMENTI.
PA---- DĪIVR
EX TESTAMENTO.
Q. POMPEIO F. QVIR.
ROGATI FRATRIS
SVI
POMPEIA Q. P.
MABRA POSVIT.

If this monument therefore ſhould bear any relation to *Pompey's* family, the following lines of *Martial* will receive from thence an additional force and beauty; as we find *Pompey's* grandſon, and probably his great grandſon, to have been buried at this diſtance from their anceſtors, and in ſuch an obſcure place.

Pom-

Pompeios *juvenes* Asia *atque* Europa, *ſed ipſum*
Terra tegit Liby[illegible]: *ſi tamen ulla tegit.*
Quid mirum toto ſi ſic jacet orbe? jacere
Uno non poterat tanta ruina loco.

Epigr. l. v. Ep. 75.

The Hammam Mereega, *or* Aquæ Calidæ Col.

Eight miles to the E. N. E. of *Maliana*, at the half way betwixt the *Shelliff* and the ſea, are the *Hammam*, i. e. the *baths* of *Mereega*, the *Aquæ Callidæ Colonia* of the ancients. The largeſt and the moſt frequented of them is a baſon of twelve foot ſquare, and four in depth: and the water, which bubbles up in a degree of heat juſt ſupportable, after it has filled this ciſtern, paſſes on to a much ſmaller one, which is made uſe of by the *Jews*, who are not permitted to bathe in company, or in the ſame place, with the *Mahometans*. Theſe baths were formerly covered, and had *corridores* of ſtone running round the baſons; but, at preſent, they lie expoſed to the weather, and are half full of ſtones and rubbiſh. Yet, notwithſtanding all this, a great concourſe of people uſually reſort hither in the ſpring, the ſeaſon of theſe waters: which are accounted very efficacious in curing the jaundice, rheumatic pains, and ſome of the moſt inveterate diſtempers. Higher up the hill there is another bath; which being of too intenſe a heat to bathe in, the water thereof is conducted through a long pipe into another chamber, where it is uſed in *Ducian*; an operation [2] of the like nature and effect with pumping. Betwixt this and the lower bath, are the ruins of an old *Roman* town, equal to that of *Herba*; and at a little diſtance from it, we ſee ſeveral tombs and coffins of ſtone, which I was informed were of an unuſual ſize. *Muzeratty*, the late *Kaleefa*, or lieutenant of this province, aſſured me, that he ſaw a thigh bone belonging to one of them, which was near two of their *draas* (i. e. thirty ſix inches) in length; the like account I had from other *Turks*, who pretended to have meaſured it: but when I was there half a year afterwards, I could not receive the leaſt information about it. The graves and coffins likewiſe that fell under my obſervation, were only of the uſual dimenſions. However, the people of *this*, as well as of other coun-

Coffins of ſtone.

[2] *Aſperſionem* in Balneis naturalibus *Ducciam* appellant.—Sunt ergo in Balneis, quæ ad hunc uſum probantur, conſtitutæ fiſtulæ—quæ digiti parvi magnitudine vel majori, ubi opus eſt, volubili epiſtomio clauſæ: è ſuperiori alveo, qui infixas ex ordine habeat fiſtulas, ac ſtatim à communi fonte ſinceras recipiant aquas, pro eo ac quiſquam voluerit, vel quantum voluerit, recluſo epiſtomio, vel clauſo infundant ſtillicidium. Delabuntur autem ſic aquæ palmi unius, vel ad ſummum cubiti ſpatio, unde ex inſultu convenientem faciant impreſſionem; vel in Balneum, vel in ſubjectum ad eas recipiendas alveolum, &c. *Baccius de Thermis*, lib. ii. cap. 16.

tries, are full of ſtories and traditions of the like nature; and indeed, provided *theſe* ſhould not have been human bones, as the *Africans* are no nice diſtinguiſhers, we may poſſibly account for them from the cuſtom of the *Goths* and *Vandals*, which might paſs over with them into *Africa*, of burying the horſe, the rider, and their armour together in the ſame grave. Long ſwords, with large croſs handles, have been often found in this country: one of which, that was found not many years ago, in the ruins of *Temendfuſe*, is ſtill preſerved in the *dey's* palace at *Algiers*. The *Roman* poet has a few fine lines upon this occaſion.

Agricola incurvo terram molitus aratro,
Exeſa inveniet ſcabra rubigine pila:
Aut gravibus raſtris galeas pulſabit inanes,
Grandia*que effoſſis mirabitur* oſſa *ſepulchris.*
Virg. Georg. I. ℣ 494, &c.

The country round about theſe baths, inhabited by the *Bookelcran* and the *Wuzra*, is made up of a ſucceſſion of exceedingly rugged hills and deep valleys; each of them, in their turn, very difficult and dangerous to paſs over. Yet this danger and fatigue is ſufficiently recompenſed, by travelling afterwards through the rich and delightful plains of the *Hadjoute* and the *Mettijiah*, which lie beyond them to the northward. The latter are called, by *Abulfeda*, *Bledeah Kibeerah*, i. e. *A vaſt country* [3]; being near fifty miles long and twenty broad; watered, in every part, by a variety of ſprings and rivulets. The many country ſeats and *maſhareas*, as they call the *farms* of the principal inhabitants of *Algiers*, are taken out of theſe plains; as it is chiefly from them that the *metropolis* is ſupplied with proviſions. Flax, *alhenna*, roots, pot-herbs, rice, fruit, and grain of all kinds, are produced here to ſuch perfection, that the *Mettijiah* may be juſtly reckoned the garden of the whole kingdom. *The plains of the* Mettijiah.

[3] *Giazaïer* Mazghannan, ſita ad littus maris, eſt admodum populoſa, & mercatores lucri addictiſſimi: plateæ ejus elegantes; ubi adjacet [بلدية كبيرة] *Abulf.* ex traduct. V. Cl. *J. Gagnier.*

CHAP.

CHAP. V.

Of the ſea-coaſt of that part of the Mauritania Cæſarienſis, *called the ſouthern province, or the province of* Titterie.

The general deſcription of this province.

THIS province, which lies bounded to the E. by the river *Booberak*, as it does to the W. by the *Maſaffran*, is much inferior to the weſtern in extent; being, excluſive of the *Sahara*, ſcarce ſixty miles either in length or breadth: neither is it, in general, ſo mountainous: for the ſea-coaſt, to the breadth of five or ſix leagues, the ſeat formerly of the ancient *Machurebi*, as it is now of the *Durgāna*, *Raſſouta*, and *Beni Hameed*, is made up chiefly of rich champaign ground: behind which indeed we have a range of rugged mountains, the continuation of *Mount Atlas*, that run, almoſt in a direct line, in a paralleliſm with the ſea-coaſt. But beyond them, particularly in the neighbourhood of *Medea*, *Titterie Doſh*, and *Hamza*; the ancient territories of the *Tulenſii* and *Baniuri*, we have other extenſive plains; though none of them equal to thoſe of the *Mettijiah*. Such is the general plan of this province which has the city of *Algiers*, the *metropolis* of the whole kingdom, for its capital.

The ſea coaſt formerly poſſeſſed by the MACHUREBI:

And the midland country by the TULENSII *and* BANIURI.

In deſcribing this province therefore, we are to obſerve that, after we have left the *Ma-ſaffran*, we paſs by a little round tower, ſituated upon a ſmall rocky *cape*, that ſtretches itſelf about a furlong into the ſea. The inhabitants call it *Seedy Ferje*, from the ſanctuary of that ſaint which is built upon it; where we have ſome few walls and ciſterns of *Roman* workmanſhip; which, by the order of *Ptolemy's* tables, may lay claim to his *Via*. We meet with ſeveral pieces of a *Roman* highway betwixt *Seedy Ferje*, *Ras Accon-natter*, and *Algiers*; and near the tomb of *Seedy Hallif*, another *Marabbutt*, about the half way betwixt *Seedy Ferje* and *Algiers*, we fall in with a number of graves, covered with large flat ſtones, each of them big enough to receive two or three bodies.

Seedy Ferje, *or* Via.

Boojereah.

The high mountain of *Boojereah*, with its three contiguous *Daſhkras*, are IX M. from *Seedy Ferje* to the N. E. Half a league from them, to the W. N. W. is the *Ras Accon-natter*, the *Cape Caxines* of our modern ſea-charts. After which, about III M. further to the S. E. we turn into the port of *Al Jezeire el gazie*, i. e. *Algiers the warlike*, as the *Turks* are pleaſed to call their *metropolis*.

Ras Accon-natter, *or* Cape Caxines.

Algiers *the warlike.*

Its inhabitants and ſituation.

This place, which for ſeveral ages has braved the greateſt powers of *Chriſtendom*, is not above a mile and a half in circuit, though it is computed

a The Cassaubah.
b The New Gate.
c Babzoune.
d The Fishers Gate.
e The Mole Gate.
f The Gate of the River.
g The Entrance into the Port.
h The Round Castle.
i The Port.
k The Villiage of Bou-jareah.
l Country Seats.
m Seedy Iacob.
n The Castle of the Star.
o The Emperors Castle.
p A Roman Highway
Ras Accounattee
A Fort
Mers el Dhabanne
The English Castle
El wed
Sitteet Aholeet
BAHYRAS
ALGIERS
The Castle of the Renegades
The Emperors Pees
Ain Rebat
THE BAY OF ALGIERS
BAHYRAS
The River Haratoh
To the Right Honourable
Sr. JOHN WILLES Kt.
Lord Chief Justice of His Majesties Court
of Common Pleas,
and one of His Majesties most Honourable
Privy Council.
A PLAN of the CITY
and Country round about
ALGIERS

computed to contain about 2000 *Chriſtian* ſlaves, 15,000 *Jews*, and 100,000 *Mahometans*; of which thirty (at moſt) may be *Renegadoes*. It is ſituated upon the declivity of a hill, that faces the N. and N. E. whereby the houſes riſe ſo gradually above each other, that there is ſcarce one but what, in one or other of thoſe directions, has a full proſpect of the ſea. The walls are weak and of little defence, unleſs where they are further ſecured (which is chiefly at the gates) by ſome additional fortification. The *Caſſaubah*, or citadel, built upon the higheſt part of the city towards the S. W. is of an octogonal figure; each of the ſides in view having port-holes or *embraſures*, defended with cannon. A ditch formerly ſurrounded the whole city to the landward, which, at preſent, is almoſt entirely filled up, except at the weſt and ſouth gates, called *Bab el wed*, the *gate of the river*, and *Bab Azoona:* where it is ſtill of little conſequence or defence. But towards the ſea it is better fortified, and capable of making a more ſtrenuous defence. For the *embraſures*, in this direction, are all employed: the guns are of braſs; and their carriages and other utenſils in good order. The battery of the *Mole-Gate*, upon the eaſt angle of the city, is mounted with ſeveral long pieces of ordnance, one of which has ſeven cylinders, each of them three inches in diameter. Half a furlong to the W. S. W. of the harbour, is the battery of *Fiſher's Gate*, or *The gate of the ſea*, which, conſiſting of a double row of cannon, commands the entrance into the port, and the road before it.

The port. The port itſelf is of an oblong figure, a hundred and thirty fathom long, and eighty broad. The eaſtern mound of it, which was formerly *the iſland* that gave name to the city, is well ſecured by ſeveral fortifications. The *Round Caſtle* (built by the *Spaniards* whilſt they were maſters of *the iſland)* and the two remote batteries, erected within this century, are ſaid to be *bomb-proof*; and have each of them their lower *embraſures* mounted with thirty-ſix pounders. But the middle battery, which appears to be the oldeſt, is of the leaſt defence. Yet none of theſe fortifications are aſſiſted either with mines or advanced works; and as the ſoldiers, who are to guard and defend them, cannot be kept up to any regular courſe of duty and attendance, a few reſolute battalions, protected by a ſmall ſquadron of ſhips, would find little difficulty to take them.

Few antiquities at Algiers. There is very little within the city that merits the attention of the curious. Upon the tower of the great *moſque* we have ſome broken inſcriptions; but the letters, though of a ſufficient bigneſs to be ſeen at a diſtance, are all of them either inverted or filled up to that degree with lime and white-waſh, that I could never particularly di-

ſtinguiſh them. They may probably be the ſame with theſe following ones taken notice of by *Gramaye*.

IVLIOCAESONI.M.M.	PTOLO. IVB. F..	.ISRVFVSETLETVS
II LEG. MAVRIT. . .	P.O. MAVRIT. X.	P. D. ONV. MIS . .
PRISCA F. ELIA POS.	COH. IVL. M. F.	*Gram. Afr. illuſt.* l.vii. c.1.

The public buildings, ſuch as their *bagnios*, *kaſhareas*, &c. their officers, ſuch as the *mufty*, *kady*, &c. the inhabitants, ſuch as *Jews* and *Moors*, &c. have been already ſufficiently deſcribed by other authors. The additions therefore which I have to make, will relate chiefly to the government; the army; the navy; and the political intereſts and alliances of *this regency:* but of theſe in their proper place.

Its former and preſent name. *Leo* and *Marmol* inform us, that it was formerly called *Meſgana*, from an *African* family of that name. The preſent name, *Al Jezeire* (for ſo we ſhould pronounce it) ſignifies, in their language, *The Iſland*; which was ſo called from being in the neighbourhood (not, as *Leo* wrongly ſuppoſes, of the *Belearick* iſlands, but) of the eaſtern mound of the harbour, which, before the time of the *Turkiſh* conqueſts, was ſevered from the continent. In their public letters and records, they ſtyle it, *Al Je-zeire Megerbie*, i. e. *The iſland in the weſt*, to diſtinguiſh it from a city of the ſame name, near the *Dardanelles*, in the *Archipellago*.

The fine proſpect round about Algiers. The hills and valleys round about *Algiers* are all over beautified with gardens and country-ſeats, whither the inhabitants of better faſhion retire, during the heats of the ſummer-ſeaſon. They are little white houſes, ſhaded with a variety of fruit-trees and ever-greens; which, beſides the ſhade and retirement, afford a gay and delightful proſpect towards the ſea. The gardens are all of them well ſtocked with melons, fruit, and pot-herbs of all kinds; and, (what is chiefly regarded in theſe hot climates) each of them enjoys a great command of water, from the many rivulets and fountains which every where abound in this ſituation. The fountain-water made uſe of at *Algiers*, univerſally eſteemed for its excellency, is likewiſe brought, through a long courſe of pipes and conduits, from the ſame ſources.

The Haratch, *or* Savus. Four miles to the S. E. of *Algiers*, we croſs the river *Haratch*, the ancient *Savus*, that has a beautiful bridge lately built over it. Upon the banks we meet with the ruins of a *Roman* city, which bids fairer

The Icosium. than *Algiers* to be the ancient *Icoſium*; placed by the *Itinerary*, as this is, XLVII M. from *Tipaſa*, or *Teſeſſad*. Croſſing afterwards the *Hamceſe*, another conſiderable ſtream, we arrive at *Temendfuſe*, or *Metafus*, a low *cape* with a *tabled land*, as the mariners call a flat hil-

Temendfuſe, *The* Rusguniæ Col.

ock,

lock, that riſes up in the middle of it. The *Turks* have here a ſmall caſtle for the ſecurity of the adjacent roads, once the chief ſtation of their navy; where we have ſtill the traces of an ancient *Cothon*; with ſeveral heaps of ruins, of the ſame extent with thoſe of *Tefeſſad*, and which have no leſs contributed to the fortifications of *Algiers*. The diſtance of fifteen *Roman* miles, betwixt theſe ruins and thoſe upon the *Haratch*, is the ſame we find in the *Itinerary*, between the *Ruſguniæ Colonia* and *Icoſium*. *Ruſgunia* is the ſame with the *Ruſtonium* of *Ptolemy*; the *Ruthiſia* of *Mela*; and the *Ruſconia* of *Pliny*, and others. In an inſcription at *Sour*, the ancient *Auzia*, is called *Col. Ruſcunienſis*.

After fording the rivers *Regya*, *Budwowe*, *Corſoe*, *Merdaſs* and *Yiſſer*, which run at no great diſtance from each other, and deſcend from the adjacent mountains of *Atlas*, we come to the little port *Jinnett*; from whence a great quantity of corn is ſhipped off yearly for *Chriſtendom*. *Jinnett* is a ſmall creek with tolerably good anchoring ground before it; and was probably *Edriſi's Mers' el Dajaje*, i. e. *Port of Hens*. I was told that *Jinnett*, or *Paradiſe*, was given to this place on account of a row-boat, which was once very providentially conducted within the creek, when the mariners expected every moment to have periſhed upon the neighbouring rocks. The ſea-ſhore, which from *Algiers* to *Temendfuſe*, and from thence to this place, is very little interrupted with rocks and precipices, begins now to be very rugged and mountainous: and among theſe eminences, three leagues farther to the E. we have the mouth of the *Booberak*, the eaſtern boundary of this province.

Port Jinnett.

Mers' el Dajaje.

CHAP. VI.

Of the moſt remarkable inland places and inhabitants of the Southern Province; *together with the correſpondent part of the* SAHARA.

BLEEDA and *Medea*, the only inland cities of this province, are each of them about a mile in circuit; but their walls, which are chiefly of mud, perforated all over by *Hornets*, cannot much contribute to their ſtrength and ſecurity. Some of their houſes are flat-roofed, others tiled, like thoſe of *Maliana*; with which they alſo agree, in being well watered, and in having all around them very fruitful

Bleeda *and* Medea, *The* BIDA Col. *and* LAMIDA.

gardens and plantations. A branch of an adjacent rivulet may be conducted through every houſe and garden at *Bleeda*; and at *Medea*, the ſeveral conduits and aqueducts that ſupply it with water, (ſome of which appear to be of *Roman* workmanſhip) are capable of being made equally commodious. Both theſe cities lie over againſt the mouth of the *Ma-ſaffran*; *viz. Bleeda* at five leagues diſtance under the ſhade of Mount *Atlas*; and *Medea* three or four leagues on the other ſide of it. As *Bleeda* therefore and *Medea* lie nearly in the ſame meridian; as they are ſituated at a proper diſtance from the *Hamam Mereega*, the *Aquæ Calidæ Colonia* of the ancients; as likewiſe there is little difference betwixt the modern and what may be preſumed to be their ancient names, we may well be induced to take the one for the *Bida Colonia*, the other for the *Lamida* of *Ptolemy*.

That part of Mount *Atlas*, which lies betwixt theſe cities, and reaches as far as Mount *Jurjura*, is inhabited by numerous clans of *Kabyles*; few of which, from their rugged ſituation, have been made tributary to the *Algerines*. The *Beni Sala* and *Haleel* overlook *Bleeda* and the rich plains of the *Mettijah*; whilſt the *Beni Selim* and *Haleefa* ſometimes deſcend into the paſture ground, near the banks of the *Biſhbeſh*, or *river of fennel*, a great quantity of which grows upon the banks of it: Further to the eaſtward, a branch of the *Megrowa* live, in a full proſpect of the extenſive plains of *Hamza*, over-againſt *Sour Guſlan*; and beyond them are the *Inſhlowa* and *Bonganie*, who have below them, to the ſouthward, the fertile plains of the *Caſtoolah*, noted for the feeding and breeding up of cattle. Not far from the *Caſtoolah* are the *Kabyles* of Mount *Jurjura*; of which the *Beni Alia* are the chiefeſt on the N. ſide, as the *Beni Yala* are on the S.

Jurjura, *the* MONS FERRATUS.

Jurjura, the higheſt mountain in *Barbary*, is as noted and conſpicuous a landmark in this province, as *Wannaſhreeſe* is in the weſtern. It is at leaſt eight leagues long; and, if we except a pool of good water, bordered round with arable ground, that lies near the middle of it, the whole, from one end to another, is a continued range of naked rocks and precipices. In the winter ſeaſon the ridge of this mountain is always covered with ſnow; and it is further remarkable, that whilſt the inhabitants of the one ſide of it, carry on an hereditary and implacable animoſity with thoſe of the other; yet, by conſent, this border of ſnow puts a full ſtop to all hoſtilities during that inclement ſeaſon; which, like thoſe of the cranes and pigmies, as related by the poet, are renewed with freſh vigour in the ſpring:

Ηέριαι δ' ἄρα ταίγε κακὴν ἔριδα προφέρεντα. *Il.* γ. ψ. 7.

Jurjura,

Jurjura, as well from it's extraordinary ruggedneſs, as from the ſituation of it betwixt (*Ruſucurium* or) *Dellys* and (*Saldis* or) *Boujeiah*, ſhould be the *Mons ferratus* [1], taken notice of by the geographers of the middle age.

If we return again to the weſtward, we ſhall find, at five leagues diſtance, to the S. of *Medea*, the *Titterie Doſh*, as the *Turks* call *Hadjar Titterie*, or *rock of Titterie*; a remarkable ridge of precipices, four leagues in length; and, if poſſible, even more rugged than *Jurjura*. Upon the ſummit there is a large piece of level ground, with only one narrow road leading up to it, where, for their greater ſecurity, the *Welled Eiſa* have their granaries. Beyond the *Welled Eiſa* are the encampments of the *Welled In-anne*, the principal *Arabs* of the diſtrict of *Titterie*, properly ſo called, which lies in the neighbourhood only of this mountain. *The rock of Titterie.*

It will be difficult perhaps to determine the meaning and import of the appellation *Titterie*, as this province is called. *Probus* [2] in his obſervations upon *Virgil*, makes *Tityrus*, the name of one of his ſhepherds, to ſignify, in the *African* language, a *he-goat*. The ſame interpretation, among others, is given to *Tityrus* by the *Greek Scholiaſt* [3] upon *Theocritus*. We likewiſe ſee upon ſome of the *Etruſcan* medals, an animal, not unlike a fawn or a kid, with [∃ ⊐ ∃ † V †] *Tutere* for the *Legend* [4]; that particular piece of money being perhaps denominated, as *Pecunia* in general was from *Pecus*, from the animal there exhibited. But the people of this diſtrict informed me, that *Titterie*, or *Itterie*, was one of their words for *cold* or *bleak*; a circumſtance indeed, which, in the nights and mornings eſpecially, I often experienced to be very applicable to this region; and ſo far may well juſtify the *etymology*.

Burg Hamza, or the caſtle of *Hamza*, where there is a *Turkiſh* garriſon of one *Suffrah* [5], is ſituated two leagues to the ſouthward of the rich plains of that name, and five to the eaſtward of the rock of *Titterie*. It is built out of the ruins of the ancient *Auzia*, called Burg Hamza, *or* Sour Guſlan, *the ancient* Auzia.

[1] Vid. *Peuting. Tab. Æthic.* &c.

[2] *Tityri* et *Melibœi* perſonas de *Theocrito* ſumpſit *(Virgilius)* ſed tamen ratio hæc nominum eſt: Hircus *Libycâ* linguâ *Tityrus* appellatur, &c. *Prob. gramm. de Bucol. carminis ratione.* Vid. & *Pomponii Sabini annot. in* 1 *Eclogam Virg. Bucol.*

[3] Τὸς ἀρνὲς, τιτύρους λέγουσι, νῦν δὲ ὄνομα ἐστὶν αἰπόλου, κατὰ ἐμφέρειαν τῦ Χαραϰτῆρος. Αλλως. ὄνομα κύριον ὁ Τίτυρος. Τινὲς δὲ φασὶν ὅτι Σικελιώτης τις, ἢ Σικελιώτης. Αλλοι δὲ τὸς ΤΡΑΓΟΥΣ, ἕτεροι τὸς σατύρους, &c. *Schol. in* 3 *Idyll. Theocr.*

[4] Vid. *Dempſt. Hetrur. reg. tab.* lx. fig. 4.

[5] *Suffrah*, the common name, among the *Algerines*, for a band or company of *Turkiſh* ſoldiers, conſiſting for the moſt part of twenty perſons, including a cook,

by the *Arabs Sour*, or *Sour Guſlan*, i. e. *the walls of the antilopes*. A great part of this ancient city, fortified, at proper diſtances, with little ſquare turrets, is ſtill remaining; and ſeems to have been little more than ſix furlongs in circuit.

Tacitus[5] has left us a very juſt deſcription of this place. For *Auzia* was built upon a ſmall plat of level ground, every where ſurrounded with ſuch an unpleaſant mixture of naked rocks, and barren foreſts, that, through the whole courſe of my travels, I ſcarce ever met with a more gloomy and melancholy ſituation. *Menander*, as he is quoted by *Joſephus*[6], mentions an *African* city of this name, built by *Ithobaal*, the *Tyrian*: though *Bochart* ſeems[7] to doubt, whether the *Phœnicians* were at all acquainted with the inland parts of *Africa*. Yet provided we could rely upon the tradition recorded by *Procopius*[8], that a number of *Canaanites* fled from *Joſhua* into the weſtermoſt parts of *Africa*, (ſome of which, upon ſuch a ſuppoſition, might have reſted at this place) nothing, I preſume, can be objected againſt the ruggedneſs of the ſituation; inaſmuch as ſuch an one, from the very nature of it, would not only be the propereſt for the firſt ſettlement of a *colony*, but for the future ſafety and ſecurity of it. Due regard might have been had to this circumſtance in the founding of *Capſa*, *Feriana*, and other cities of *Africa*, which will be hereafter taken notice of; whoſe founders muſt otherwiſe have made an improper choice, provided they were guided by any other conſideration than the natural ſtrength of the ſituation.

We have at *Sour* the following inſcriptions.

Upon a ſtone adorned with figures and garlands.

AVZIO DEO GENIO ET CONSERVATORI COL-
EXTRICATVS - - - - - - - - - - - - - - -

ſteward, and *Oda Baſha*, or lieutenant: ſo called from being ſuch a number or meſs, as for the conveniency of eating, can ſit about one [ξρὰω *Suffrah*] table. This was like the *Contubernium* of the *Romans*, though conſiſting of no more than ten perſons, who lived in one *papilio* (pavilion) or barrack; as theſe *Turks* live under the ſame tent. The *Decanus*, who commanded the former, anſwers to the *Oda Baſha*, who commands the latter.

[5] Nec multo poſt adfertur Numidas apud Caſtellum ſemirutum, ab ipſis quondam incenſum, cui nomen Auzea, poſitis mapalibus conſediſſe fiſos loco, quia vaſtis circum ſaltibus claudebatur. *Tacit. annal.* l. iv.

[6] Οὗτος [Ithobalus] πόλιν Βότρυν ἔκτισε τῶν ἐπὶ Φοινίκης ἡ Αὐζατὴν (vel disjunctis vocibus Αὔζα τὴν) ἐν Λιβύῃ. *Joſ. Antiq. Jud.* l. viii. c. 7.

[7] Sed Mediterranea hæc oppida, tot millibus a *Phœnice* diſſita non videntur quicquam habere commune cum Auza *Ithobuli*. *Boch. Chan.* l. i. c. 24.

[8] *Procop. De bell. Vandal.* l. ii. c. 20.

Upon

Upon the end of a tomb-ſtone a quarter of a mile from the city.

AANBVS HOC SACRVM CERTA PI
ETATE RESOLVO HOC NOVELLVS EGO
MATRI FILIOQVE SEPVL†S VALEN†AA †BI
DIGNO DVLCISSIMA MATER NOMEN
VIGET ECCE TWM IN †TVO CLARVM
ƉNVM NATVRAE MERI†S DE CARMINE
SIGNO FELIX ECCE SOLVM EC† HAEC DVO
NOMINA CARA EXTRICATE FILI AD
PLANCTVS AVIAE ƉLENTI
AELIA VALENTINA VIXIT ANNIS LV
IVLIVS EXTRICATVS VIXIT XII

Upon a moulded ſtone.

Q. GARGILIO Q. F. - - - -
PRAEF COH - - - - BRITANIAE
TRIB CO - - - MAVRCAE
AMIL PRAE. COH. SING ET VEX
EQQ MAVROR IN TERRITORIO
AVZIENSI PRETENDENTIVM
DEC DVARVM COLL AVZIEN
SIS ET RVSCVNIENSIS ET PAT
PROV OB INSIGNEM IN CI
VES AMOREM ET SINGVLA
REM ERGA PATRIAM ADFEC
TIONEM ET QVOD EIVS VIR
TVTE AC VIGILANTIA FA
RAXEN REBELLIS CVM SA
TELLITIBVS SVIS FVERIT
CAPTVS ET INTERFECTVS
ORDO COL AVZIENSIS
INSIDIIS BAVARVM DE
CEPTO PPFDD VIII KAL
FEBR. PR. CCXXI [9].

[9] Provided *Mauritania* was made a *Roman colony*, A. U. C. 721, and before *Chriſt* 32, then the defeat of *Faraxen* here recorded, but no where mentioned in the *Roman* hiſtory, will fall in with the clxxxix year of our *Chriſtian* æra; or with the eleventh of *L. Septimius Severus*. *Mauritania* was likewiſe divided into two provinces, by the Emperor *Claudius*, A. U. C. 795, A. D. 42.

Upon

Upon a moulded ſtone in half foot letters.

IVLIAE
AVGVS
TAE AAR̄I
CAESA
RIS ET
CASR̄O
RVM

A few miles to the ſouthward of *Sour*, we enter upon *Gætulia*; the firſt remarkable place whereof, in this direction, is *Jibbel Deera*, where the river *Jin-enne* has its ſources; which, after it has run about xxx M. through a dry ſandy ſoil, loſes itſelf gradually in the *Shott*. Moſt of the *Getulian Arabs*, who dwell upon the banks of it, are *Zwowiah*, as they call *the children and dependents of their Marab-butts*; who, like thoſe of the ſame denomination in all the *Mahometan* dominions, enjoy great privileges, and have their poſſeſſions free from taxes. The *Welled Seedy Eeſa*, the northermoſt of theſe communities, have the *Cubba* [1], or ſepulchre of their *tutelar ſaint*, at the diſtance of five leagues from *Sour*; and there is hard by it, on the one ſide, a large rock, upon which *Seedy Eeſa* was daily accuſtomed to offer up his devotions: on the other, is the *Ain Kidran*, or *fountain of tar*, ſuppoſed to have been miraculouſly beſtowed upon them by this their progenitor; which they conſtantly uſe inſtead of common tar, in ſalving their camels, and other uſes.

Jibbel Deera.

The river Jin-enne.

Welled Seedy Eeſa.

Ain Kidran.

Six leagues farther, are the *Welled Seedy Hadjeras*, called ſo from another of theſe *Marab-butts*. Here the *Jin-enne* changes its name into that of the *Wed el Ham*, i. e. *the river of carnage*, from the number of people that have been, at one time or other, drowned in the fording of it. A little higher, is *Seedy Braham Aſlemmy*, and his offſpring, who ſpread themſelves to *Hirmam*, a noted *Daſhkrah*, in the way to *Booſaadah*; at which place the *palm* brings forth its fruit to perfection.

Welled Seedy Hadjeras.

Welled Seedy Braham Aſlemmy.

Hirmam.

[1] *Cubbah*, قبة, Fornix, concameratum opus & tale ſacellum. *Gol.* in voce, *from whence perhaps the* cupola *of the later architects. The* Marab-butts *are generally buried under one of theſe buildings, which have frequently an oratory annexed to them; and ſometimes a dwelling-houſe, endowed with certain rents for the maintenance of a number of* Thul-by, [طلبة] *who are to ſpend their time in reading and devotion. I have often obſerved, where there is an inſtitution of this kind, that then the place, including the* Kubbah, *the Oratory, &c. is called the* Zwowah *of ſuch or ſuch a* Marab-butt.

Jibbel

Jibbel Seilat lies about ſeven leagues to the weſtward of *Seedy Braham*; and twelve leagues farther, in the ſame direction, are *The* [*Theneate el Gannim*] *Sheep-cliffs*, called likewiſe *Ede Tepelaar*, or *The ſeven Hills*, by the *Turks*. Theſe are ſituated over againſt the *Burgh Swaary* and the *Titterie Doſh*, at thirteen leagues diſtance. A little way beyond the *Seven Hills*, are the eminences and ſalt-pits of *Zaggos*, after which are the *Saary*, and the *Zeckar*, two noted mountains; this twelve, the other five leagues to the ſouthward of *Zaggos*. Theſe, with many other rugged and mountainous diſtricts in the *Sahara*, very well illuſtrate what *Strabo* may be ſuppoſed to mean by the γῆ τῶν Γαιτύλων ὀρεινὴ, *The mountainous country of the Gætulians*.

Jibbel Seilat.

Theneate el Gannim.

Zaggos.

M. Saary.

Zeckar.

Six leagues to the E. of the *Zeckar*, is *Fythe*[1] *el Bothmah*; ſo called perhaps from *The broad* or *open turpentine trees*, that grow upon the ſpot. Seven leagues from thence to the N. is *Thyte el Bo-tum*, i. e. *The thick* or ſhady *turpentine tree*, as it is propably named, in contradiſtinction to the others. Theſe are two noted ſtations of the *Beni Mezzab*, and other *Gætulians*, in their journeyings to *Algiers*.

Fythe el Bothmah.

Thyte el Botum.

At *Herba*, a heap of ruins a little to the eaſtward of *Fythe el Bothmah*, are the ſources of *Wed el Shai-er*, i. e. *The Barley-river*, a conſiderable ſtream of this part of *Gætulia*. The courſe of it, from *Herba* to the *Daſhkrah* of *Booferjoone*, is ten leagues in a N. N. E. direction. At a little diſtance from *Booferjoone*, below a ridge of hills, there are other ancient ruins called *Gahara*. Beſides the *palm*, which grows in this parallel to perfection, *Booferjoone* is noted alſo for apricots, figs, and other fruit.

Herba.

Wed el Shai-er.

Booferjoone.

Gahara.

To the N. of *Booferjoone*, the *Wed el Shai-er* acquires the name of *Mailah*, from the ſaltneſs of its water: and paſſing afterwards to the E. of *Ain Difla*, or *Defaily*, i. e. *The Fountain of Oleanders*, it loſes itſelf in the *Shott*. Over this fountain hangs the mountain *Maiherga*, the noted haunt of leopards, ſerpents, and other noxious animals.

Wed el Mailah.

Ain Defaily.

Mount Maiherga.

Six leagues to the S. of *Fythe el Bothmah*, are *Gumra* and *Amoura*, two *Daſhkras*, with their ſprings and fruit-trees. Beyond them, at a greater diſtance to the S. W. is the *Ain Maithie*; and then *Dimmidde*, which, with the *Daſhkrahs* of the *Low-aate*, nine leagues farther to the W. are the moſt conſiderable villages of this part of *Gætulia*. They have likewiſe in all theſe places, large plantations of palms, and other fruit-trees.

Gumra.

Amoura.

Dimmidde.

Low-aate.

The numerous families of *Maithie*, *Noïle*, and *Mel-leeke*, with their ſeveral ſubdiviſions and dependents, range all over this country, from

The Arabs *of this part of* Gætulia.

[1] *Viz.* a ﻓﻠﺢ latum efficere. *Gol. in voce.*

the *Burg Swaary* and the river *Jin-enne*, to the *Daſhkras* of the
The Ammer. *Low-aate* and *Ammer*, who ſpread themſelves over a mountainous diſtrict, a great way to the weſt; the ſame probably with the *Mons Phruræſus* of the old geography.

Beni Mezzab. The villages of the *Beni Mezzab* are ſituated thirty five leagues to the S. of the *Low-aate* and *Ammer*, which, having no rivulets, are
Gardeiah. ſupplied altogether with well-water. *Gardeiah*, the capital, is the
Bery-gan. fartheſt to the W. *Bery-gan*, the next conſiderable *Daſhkrah*, is nine
Grarah. leagues to the E. and *Grarah*, the neareſt of them to *Wurglah*, has the like diſtance and ſituation with reſpect to *Bery-gan*. The *Beni Mezzab*, notwithſtanding they pay no tribute to the *Algerines*; and being of the ſect of the *Melāki*, are not permitted to enter their *moſques*; yet they have been from time immemorial the only perſons who are employed in their ſlaughter-houſes, and who have furniſhed their ſhambles with proviſions. It may be farther obſerved of theſe ſons of *Mezzab*, that they are generally of a more ſwarthy complexion than the *Gætulians* to the northward; and as they lie ſeparated from them by a wide inhoſpitable deſert, without the leaſt traces of dwellings, or even the footſteps of any living creatures, they may be in all probability (as it will be elſewhere obſerved) the moſt
Some of the MELANOGÆTULI. weſtern branch of the *Melanogætuli*, ſo much ſought after, and ſo little known in the modern ſyſtems of geography.

CHAP. VII.

Of the ſea-coaſt of that part of the Mauritania Cæſarienſis *and* Numidia, *called the Eaſtern Province, or the province of* Conſtantina.

The general deſcription of this province. THIS province, which lies betwixt the meridians of the rivers *Booberak* and *Zaine*, is nearly equal to the other two in extent; being upwards of CCXXX M. in length, and more than a hundred in breadth. The tribute likewiſe collected by this *viceroy* is proportionably greater. For whilſt the *Titterie bey* brings every year into the treaſury of *Algiers* little more than twelve thouſand dollars [a]; and the *Tlemſan bey* from forty to fifty thouſand; the *viceroy* of *Con-*

[a] *A dollar of* Algier, Tunis, *&c. paſſeth uſually for three ſhillings and four-pence or ſix-pence; and of the like value are the* aſlanee *or current dollars of the* Levant.

ſtantina

ſtantina pays in never leſs than eighty and ſometimes a hundred thouſand.

The ſea-coaſt of this province from the *Booberak* to *Boujeiah*, and from thence almoſt entirely to *Bona*, is rocky and mountainous, anſwering very appoſitely to the title of *El Adwah*, i. e. *The high or lofty*, as *Abulfeda* has called it. In this rugged ſituation I have already taken notice of the mouth of the *Booberak*, which is made up of a number of branches, like the *Shelliff* and *Maſaffran*; and is likewiſe of the ſame bigneſs. *The ſea coaſt mountainous.*

At a league's diſtance from the mouth of this river, is *Dellys*, or *Teddeles*, according to *Leo* and the ſea-charts. It is a ſmall town, built out of the ruins of an ancient city, partly at the foot, partly upon the declivity of a high mountain; by which token of antiquity, it ſhould be the *Ruſucurium* of *Pliny*; the *Ruſuccoræ* of *Ptolemy*, and the *Ruſuccuro* of *Peutinger's* tables. In a wall juſt over the harbour, we have a ſmall niche, with an image placed in it, in the attitude of a *Madona*; but the features and drapery are defaced. Dellys, *or* Rusucurium.

Paſſing afterwards by the port of the *Zuffoone*, commonly called *Mers' el Fahm*, or the *port of charcoal*; and doubling cape *Aſh-ounemon-kar*, where ſtood the ancient *Vabar*; the next remarkable place is the *Mettſe-coube*, or *perforated rock*, which anſwers to the TPHTON of *Ptolemy* in the import of the name, though not in ſituation. The *Spaniſh* prieſts, who have been for many ages ſettled at *Algiers*, as Father Confeſſors to the ſlaves, have preſerved a tradition, that *Raymund Lully*, in his miſſion to *Africa*, was wont to retire frequently to this cave for meditation. Mettſecoube, *or* τρητον.

At a ſmall diſtance from the *Mettſe-coube*, is the port of *Boujeiah*, called by *Strabo* the port of *Sarda*, or *Salda* rather, which is much larger than either that of *Warran* or *Arzew*. It is formed, however, in the ſame manner, by a neck of land that runs out into the ſea. A great part whereof was formerly faced with hewn ſtone; over which likewiſe an aqueduct was conducted, for the greater convenience of ſupplying the port with water. But, at preſent, the wall, the aqueduct, and the baſons, where the water diſcharged itſelf, are all of them deſtroyed: and the tomb of *Seedy Buſgree*, one of the tutelar ſaints of *Boujeiah*, is the only thing for which it is now remarkable. *The port of* Boujeiah.

Boojeiah, or *Bugia*, as the modern geographers write it, is built upon the ruins of a large city, in the ſame manner and in a like mountainous ſituation with *Dellys*, though of thrice the circuit. Beſides the caſtle, upon the ſummit of the hill, which commands the whole city, there are two others at the bottom of it, for the ſecurity *The ſituation of the city.*

of the port: where ſeveral breaches ſtill remain in the walls, made by the cannon-balls that were fired againſt them by Sir *Edward Spragg* (A. D. 1671.) in his memorable expedition againſt this place. Vid. *Atlas Geogr.* Vol. IV. p. 191.

The garriſon. *Boujeiah* is one of the garriſoned towns of this kingdom, where three *Suffrahs* conſtantly reſide; yet they are of ſo little conſequence, that the *Goryah*, the *Toujah*, and other neighbouring *Kabyles*, lay it *The market.* under a perpetual blockade. Every market-day eſpecially, ſtrange diſorders are occaſioned by theſe factious clans. All the morning indeed, while the market continues, every thing is tranſacted with the utmoſt peace and tranquillity; but, immediately afterwards, the whole place is in an uproar and confuſion; and the day rarely ends without ſome flagrant inſtance of rapine and barbarity.

The trade. The *Boujeians* carry on a conſiderable trade in plowſhares, mattocks, and ſuch like utenſils as they forge out of the iron, dug out of the adjacent mountains. Great quantities likewiſe of oil and wax, brought down every market-day by the *Kabyles*, are ſhipped off for the *Levant*, and ſometimes for *Europe*.

Boujeiah, *The* SALDÆ Col. *Boujeiah*, lying at the diſtance of XCI *Roman* miles, (according to the *Itinerary*) or 1° 45′ (according to *Ptolemy*) from *Dellys* or *Ruſucurium*, may be well taken for the ancient *Saldæ*; though the latter is vaſtly miſtaken in placing it in lat. 32° 30′; i. e. 4° 15′ too far to the ſouthward. *Abulfeda* alſo, though nearer to the truth, yet, in giving to it 34° of N. lat. throws it 2° 48′ too far to the S. *Boujeiah* being the only city of this part of *Barbary*, that is taken notice of by *Abulfeda*, will give us room to ſuſpect, that *Algiers* was either not built, or of little conſideration in his time.

The river of Boujeiah, *The* NASAVA. A large river runs a little to the eaſtward of *Boujeiah*; which may be the *Naſava* of *Ptolemy*. It is of a very great extent; and, if we except the plains of *Hamza* and *Seteef*, the whole country, which is watered by ſevered branches of it, is very rocky and mountainous; thereby occaſioning ſuch a number and variety of torrents, particularly in the winter ſeaſon, that infinite loſſes and calamities are daily ſuſtained by the inhabitants. The *Beni Boo-Maſoude*, who live near the mouth of it, have frequent occaſion to make this complaint; where we may very juſtly apply the beautiful deſcription that *Horace* has left us of the *Tiber*.

——— *Cætera fluminis*
Ritu feruntur, nunc medio alveo
Cum pace delabentis Etruſcum
In mare, nunc lapides adeſos,

Stirpeſque

Stirpeſque raptas, & pecus, & domos
Volventis una, non ſine montium
Clamore, vicinæque Sylvæ:
Quum fera diluvies quietos
Irritat amnes. &c. Lib. iii. Carm. Od. 29.

The *Manſoureah*, or *Siſaris*, another large river at a ſmall diſtance from the *Naſava*, ſeparates the diſtricts of the *Beni Iſah* and the *Beni Maad*. The nick-name of *Sheddy* (i. e. *Monkey*) that was given two centuries ago, by the *Beni Maad* to the *Sheck* or chief of the *Beni Iſah*, occaſioned that bloody and irreconcileable animoſity which has ever ſince ſubſiſted betwixt them. The greateſt part of the oaken plank and timber, that is made uſe of in the docks of *Algiers*, is ſhipped off from the *Man-ſou-reah*. *The* Man-ſoureah, *or* Sisaris.

Jijel, the *Igilgili* of the ancients, lies a little beyond the *cape* that forms the eaſtern boundary of the gulph of *Boujeiah*. There is nothing left us of this ancient city, except a few miſerable houſes and a ſmall fort, where the *Turks* have a garriſon of one *Suffrah*. It will not, I preſume, be diſputed that *Boujeiah* and *Jijel* are the *Saldæ* and *Igilgili* of the ancients: though it may be difficult to reconcile the thirteen leagues, which, in travelling along the ſea-coaſt, we find betwixt them, with the 2° of *Ptolemy*, or with the ninety three *Roman* miles of the *Itinerary*. *Ptolemy* likewiſe places *Igilgili* half a degree to the ſouthward of *Saldæ*, in a ſituation quite contrary to that of *Jijel*, which lies 12′ more to the northward. This circumſtance, together with the diſtance of DCCXXXIII M. which *Agathemer* places betwixt [2] Γιλγελις (as he calls it) and *Maſſilia*, now *Marſeilles*, in the gulph of *Narbonne*, inſtead of CCCC at the moſt, as it ſhould be, are other inſtances, among many already given, of the inaccuracy of the ancient geography. Jijel, *or* Igilgili.

The *Wed el Kibeer*, i. e. *The Great River*, the *Ampſaga* [3] of the ancients, falls into the ſea ten leagues to the E. of *Jijel*. Beyond it are the *Sebba Rous*, or *Seven Capes*, where the *Sinus Numidicus* may be ſuppoſed to begin; where likewiſe the river *Zhoora* has its influx. *The* Wed el Kibeer, *the* Great River, *or* Ampsaga.

The *Welled Attyah*, and the *Beni Friganah*, the two principal clans of the *Sebba Rous*, drink of this river, and dwell not, like other *Kabyles*, in little mud-walled hovels, but in caves, which they themſelves have either ſcouped out of the rocks, or found ready made to their hands. When any veſſel, either in the courſe of ſailing, or by diſtreſs of weather, approaches their coaſt, theſe inhoſpitable *Kabyles* Welled Attyah. Beni Friganah. *Their barbarity.*

[2] *Agathem. Geogr.* l. ii. c. 14. [3] *Ampſaga*, Arabice אמסא *aphſach*, latum et amplum ſonat. *Boch. Chan.* l. i, c. 24.

immediately ſtart out of their holes, and running down to the cliffs of the ſhore, which they cover with their multitudes, they throw out a thouſand execrable wiſhes that God would deliver it into their hands. And probably the name of *Boujarone* or *Catamite*, was firſt given by the *Italian* geographers to theſe *capes*, in conſideration of the brutal and inhuman qualities of the inhabitants.

The Seven *Capes*, *The* TRITUM Promont. METAGONIUM.

The *Tritum* of *Strabo*, and the *Metagonium* of *Mela*, anſwer to theſe promontories. And indeed, the *Metagonium* of *Strabo*, in being placed at the diſtance of three thouſand furlongs from *Carthago Nova*, or *Carthagena*, according to its preſent name, will much better agree with this place, than with the *Ras el Harſhfa*, as it has already been taken notice of.

Cull, *The* COLLOPS Magnus, *or* CULLU.

Cull, the *Collops Magnus*, or *Cullu* of the ancients, another maritime garriſon of the *Algerines*, is ſituated under the eaſtermoſt of theſe *capes*, XVIII M. from the *Great River*. It is in the ſame miſerable condition with *Jijel*, and with as few antiquities to boaſt of. The ſmall haven that lies before it, is in the ſame faſhion, though more capacious than that at *Dellys*, from which the adjacent city might receive its name [1]. Here the river *Ze-amah* has its influx.

The river Ze-amah. Sgigata *or* Stora, *The* RUSICADA.

Sgigata, the ancient *Ruſicada*, called likewiſe *Stora* in the ſea-charts, is of a greater extent than *Cull*, and diſcovers more tokens of antiquity; though a few ciſterns, converted at preſent into magazines for corn, are the only remains of it. The author of the *Itinerary*, in laying down LX M. betwixt *Chulli* and this place, more than doubles the real diſtance betwixt them. The adjacent rivulet may be well taken for the *Tapſas* [2] of *Sequeſter*.

Port Gavetto. Ras Hadeed.

Five leagues to the N. E. of *Sgigata*, is the little port of *Gavetto*; and then, after doubling *Ras Hadeed*, i. e. *The Cape of Iron*, four leagues further, which is the eaſtern boundary of the *Sinus Numidicus*, we arrive at the iſland *Tuckuſh*, with a village of the ſame name ſituated over-againſt it, upon the continent. This was probably the *Tucatua* of the *Itinerary*, and the *Tucaccia* of *Thuanus* (l. vii. *in principio*).

Tuckuſh, *The* TACATUA.

Ras el Hamrah, *The* HIPPI Prom.

Leaving this iſland and village, we double *Cape Hamrah*, or the *Red Promontory*, the *Hippi Promontorium* of the ancients: and paſſing by the little port *Barber*, called, by the *Europeans*, *Port Genoeſe*, we arrive at *Bona*; known to the *Moors* by the name of *Blaid el Aneb*, or *The Town of Jujebs*, from the plenty of fruit which is gathered in the neighbourhood. *Bona* is, without doubt, a corruption of *Hippo* or *Hippona*; though we are not to look for that ancient city here, where

Bona or Blaid el Aneb,

[1] Viz. *a* ⅄ Culla, *Portus, tuta navium Statio, unde Italorum* Scala. Vid. *Gol. in voce.*

[2] *Tapſas Africæ* fl. juxta *Ruſicadem.* Vib. Sequeſt. *de flumin.*

the name is preſerved, but among a heap of ruins a mile farther to the ſouth. *Leo* informs us, that *Blaid el Aneb* was built out of theſe ruins of *Hippona*; and it is certain, if we except one or two of the ſtreets, that are made with cauſeways, after the *Roman* manner, the reſt might have been the later work of the *Mahometans*. *Bona* therefore may be rather the *Aphrodiſium* of *Ptolemy*, which he places 15′ to the N. of *Hippo*; as the *Colonia*, joined with it in the tables, will, according to *Cellarius*, (l. iv. c. 5.) be an appellation more ſuitable to the latter. *The* APHRODISIUM.

Bona, beſides its capacious harbour to the E. had formerly a convenient little port under the very walls of it to the ſouthward; but by the conſtant diſcharge of ballaſt into the one, and neglecting to cleanſe the other, both of them are every day rendred leſs ſafe and commodious. However a great quantity of corn, wool, hides, and wax, are every year permitted to be ſhipped off from this place; which, by proper care and encouragement, might become the moſt flouriſhing city in *Barbary*; as by removing the rubbiſh, repairing the old ruins, and introducing a ſupply of freſh water, which is much wanting, it would be one of the moſt convenient and delightful. *The ports and trade of* Bona.

Betwixt *Blaid el Aneb* and the ancient *Hippo*, we have a low, marſhy plain, which appears to be an acquiſition from the ſea, and might have therefore been formerly the haven of *Hippo*. The river *Boo-jeemah*, which has a bridge of *Roman* workmanſhip built over it, runs along the weſtern ſide of this marſh; as the *Seibouſe*, a much larger river, does to the eaſtward: both of them having their influx together into the ſea. They both of them likewiſe are very ſubject to inundations; and bringing along with them, at theſe times, a great many roots and trunks of trees, and leaving them afterwards upon the neighbouring ſhore, might have firſt occaſioned, as I have mentioned, this addition of land to the continent. The low ſituation of the adjacent country, and the inundations conſequent thereupon, ſufficiently juſtify the etymology which *Bochart* [3] has left us of *Hippo*. *The ancient haven of* Hippo. *The rivers* Boo-jeemah *and* Seibouſe.

The ruins of this ancient city are ſpread over the neck of land that lies betwixt theſe rivers; which near the banks is plain and level, but riſes afterwards to a moderate elevation. They are about half a league in circuit, conſiſting, as uſual, of large broken walls and ciſterns; ſome of which were ſhewn by the *Moors*, (who have an in- *The ſituation of the ancient* HIPPO-REGIUS.

[3] Nec ab equis aut equilibus *Hipponem* Græco nomine *Phœnices* appellaſſent —— *Hippo* nempe a *Phœnicibus ubo* vel *ubbo* dici potuit, quia in ſinu latet. Sinus enim *Syris* eſt עובא *ubo*, vel עבא *ubbo*, etiam ut multi ſcribunt. Et *Arabice* עב *ubbon* tam STAGNUM quam Sinum ſonat. *Giggeius* אלעב (alubbo) *Sinus, Stagnum. Chan.* l. i. cap. 24.

tereſt

tereſt in keeping up ſuch a profitable tradition) for the convent of St. *Auſtin*. This city was called *Hippo Regius*, not only in contradiſtinction to the *Hippo Zarytus*, but from being one of the royal cities of the *Numidian* kings. For *Silius Italicus* [1] acquaints us, that it was formerly one of their favourite ſeats: and indeed, if a city ſtrong and warlike; [2] commodiouſly ſituated, as well for trade and commerce, as for hunting and diverſion; that enjoyed a healthful air, and took in, at one view, the ſea, a ſpacious harbour, a diverſity of mountains loaded with trees, and plains cut through with rivers, could engage the affections of the *Numidian* kings, *Hippo* had all this to recommend it.

The Mafragg, *or* RUBRICATUS.

The *Sei-bouſe* and *Ma-fragg*, the principal rivers betwixt *Hippo* and *Tabraca*, anſwer to the *Armua* and *Rubricatus* of the ancients. *Thuanus* (l. vii. p. 612.) ſeems to have been very little acquainted with the courſe of the latter, in conducting it, below the *promontorium Apollinis*, into the gulph of *Carthage*.

Cape ROSA. Baſtion.

Doubling *Cape Roſa*, five leagues from the *Mafragg* to the N.E. we turn into the *Baſtion*; where there is a ſmall creek, and the ruins of a fort, that gave occaſion to the name. The factory of the *French African* company, had formerly their ſettlement at this place: but the unwholeſomeneſs of the ſituation, occaſioned by the neighbouring ponds and marſhes, obliged them to remove to *La Calle*, another inlet, three leagues farther to the eaſt; where thoſe gentlemen have a magnificent houſe and garden, three hundred coral fiſhers, a company of ſoldiers, ſeveral pieces of ordnance, and a place of arms. Beſides the advantage of the coral fiſhery, and of the whole trade of the circumjacent country, they have alſo at *Bona*, *Tuckuſh*, *Sgigata*, and *Cull*, the *monopoly* of corn, wool, hides, and wax; for which they pay yearly to the government of *Algiers*, to the *Kaide* of *Bona*, and to the chiefs of the neighbouring *Arabs*, thirty thouſand dollars, i. e. about five thouſand guineas of our money; a trifling ſum for ſuch great privileges. The *Baſtion*, and *La Calle*, are, I preſume, too near each other to be taken for the *Diana* and *Nalpotes* of the *Itinerary*, which however we are to look for in this ſituation.

La Calle.

The maritime clans of Numidia.

Among the principal inhabitants of the maritime parts of *Numidia*, we have along the banks of the *Zeamah*, the *Beni-Meleet*: and after them the *Reramnah*, *Taabnah*, and *Beni Minnah*, who, with the *Hajaitah* and *Senhadgah*, the *Bedoweens* of *Porto Gavetto* and *Ras*

[1] Antiquis dilectus regibus *Hippo*. l. iii. v. 259.

[2] Ες πόλιν Νομιδῶν ἰσχυρὰν, ἐπὶ θαλάσσῃ κειμένην, ἀφικόμενος, ἣν δὴ Ἱππῶν ῥήγιον καλέσι. *Proc. Bell. Vand.* l. ii. c. 4.

Hadeed,

Hadeed, are the chief communities of the *Sinus Numidicus*, or gulph of *Stora*. But the mountains from *Tuckuſh* to *Bona*, and the plains from thence to the *Ma-fragg*, are cultivated by the citizens of *Bona*. The *Merdaſs*, who have continued to live in this ſituation from the time of *J. Leo*[1], are the *Bedoweens* of the champain country betwixt the *Ma-fragg* and the *Baſtion*. Beyond them are the *Mazoulah*, who have an unwholſome diſtrict, full of ponds and marſhes, quite up to the *Nadies*. Theſe, a miſchievous plundering tribe, like the reſt who live upon the frontiers, ſpread themſelves from the *Wed el Erg*, to the mountains of *Ta-barka*; where the river *Zaine*, the ancient *Tuſca*, the eaſtern boundary of this province, has its ſources.

Zaine, in the language of the neighbouring *Kabyles*, ſignifies an *oak tree*; a word of the ſame import nearly with *Thabraca*, or *Tabraca*, as the ancient city, built upon the weſtern banks of it, was called. *Leo* indeed, and others upon his authority, call it *Guadil-barbar*, i. e. the river *Barbar*, and deduce it from the city *Urbs*, which lies a great way to the ſouthward. But this river is known by no ſuch name at preſent; neither are its fountains at any greater diſtance than the adjacent mountains. *Tabarca*, as it is now called, has a ſmall fort to defend it, but can boaſt of few other remaining antiquities, beſides a *Cippus*, with the following inſcription: *The river* Zaine, *or* Tuſca.

D. M. S.
NEVIA GEMIS.
TA PIA CASTA
VIX. ANN. XXII.
MENS. VI. H. XI.
H. S. E.

The *Lomellines*, a noble *Genoeſe* family, have been in poſſeſſion of the little iſland that lies before *Tabarca*, at the mouth of the *Zaine*, ever ſince the time of the famous *Andrea Doria*, to whom the *Tuniſeans* gave it, with the ſolemn conſent of the *Grand Segnor*, in ranſom for one of their princes, whom *Andrea* had taken captive. This place is defended by a ſmall caſtle, well armed, and in good order, and protected the coral-fiſhery, which was carried on in theſe ſeas. But, A. D. 1740, that monſter of princes, *Ally Baſhaw*, the reigning king of *Tunis*, took it by treachery from the *Genoeſe*; and, contrary to all juſtice, and the right of nations, put ſome of them to *The iſland of* Tabarca, *taken from the* Genoeſe.

[1] Huic oppido (*Bonæ*) ſpatioſiſſima quædam eſt planities, cujus longitudo quadraginta, latitudo autem viginti quinque continet milliaria: hæc frugibus ferendis eſt feliciſſima, ab *Arabibus* quibuſdam colitur, quos *Merdez* appellant. *J. Leo*, p. 211.

the ſword; and the reſt, to the number of three or four hundred, he carried into captivity.

CHAP. VIII.

Of the moſt remarkable inland places and inhabitants of the Eaſtern Province, *or province of* Conſtantina; *together with the correſpondent part of the* Sahara.

The general deſcription of the inland parts of this province.

THE whole tract of this province, which lies between the meridians of the rivers *Boo-berak* and *Zhoore*, from the ſea coaſt to the parallels of *Seteef* and *Conſtantina*, is, for the moſt part, a continued chain of exceedingly high mountains; few of whoſe inhabitants, from the ruggedneſs of their ſituation, pay any tribute to the *Algerines*. Near the parallels of *Seteef* and *Conſtantina*, it is diverſified with a beautiful interchange of hills and plains, which afterwards grows leſs fit for tillage, 'till it ends, upon the *Sahara*, in a long range of mountains; the *Buzara*, as I take it to be, of the antients. The diſtrict of *Zaab* lies immediately under theſe mountains; and beyond *Zaab*, at a great diſtance in the *Sahara*, is *Wadreag*, another collection of villages. This part of the eaſtern province, including the parallel of *Zaab*, anſwers to the *Mauritania Sitifenſis*, or the *Firſt Mauritania* [1], as it was called in the *Middle Age*.

BUZARA-MONS.

VIZ. *Of the* Mauritania Sitifenſis.

The general deſcription of Numidia.

The mountainous country betwixt the meridians of the rivers *Zhoore* and *Seibouſe*, is of no great extent, rarely ſpreading itſelf above ſix leagues within the continent; the inhabitants whereof, near *Tuckuſh* and *Bona*, are tributaries to the *Algerines*; but in the gulph of *Stora*, near *Port Gavetto*, *Sgigata*, and *Tull*, they bid them defiance. From the *Sei-bouſe* to the *Zaine*, except in the neighbourhood of *Ta-barka*, where it begins again to be very mountainous, the country is moſtly upon a level, though ſometimes interrupted by hills and foreſts. The like interruptions we meet with below *Tuckuſh*, along the encampments of the *Hareiſhah*, *Grarah*, and other *Bedoweens*, as far as *Conſtantina*; where we ſometimes ſee a ſmall ſpecies of *red deer*, which are rarely, if ever, met with in other parts of this kingdom. Beyond this parallel, we have a range of high mountains, the *Tham-*

THAMBES MONS.

[1] *Procop. Bell. Vand.* cap. 20. l. ii. p. 287.

bes

bes of *Ptolemy*, extending themſelves as far as *Ta-barka*; behind which, there is paſture and arable ground, ending at length upon the *Sahara*, (as the *Mauritania Sitifenſis* did before) in a ridge of mountains; the *Mampſarus* probably of the ancients. Part of the *Africa Propria* of *Mela* and *Ptolemy*, the *Numidia Maſſylorum*, the *Metagonitis Terra*[2], &c. was comprehended in this part of the province[3]. MAMPSARUS mons.

But to be more particular.—A few leagues to the S.E. of *Mount Jurjura*, among the mountains of the *Beni Abbeſs*, we paſs through a narrow winding valley, continued for above half a mile, under two oppoſite ranges of exceedingly high precipices. At every winding, the rocky *ſtratum* that originally went acroſs it, and thereby ſeparated one part of this valley from another, is hewn down like ſo many door caſes, each of them ſix or ſeven feet wide, which have given the *Arabs* an occaſion to call them the *Beeban*, or *gates*; whilſt the *Turks*, in conſideration of their ſtrength and ruggedneſs, know them by the additional appellation of *Dammer Cappy*, i. e. *the gates of iron*. Few perſons paſs through them without horror; a handful of men (and the maſters of them are a race of ſturdy fellows) being able to diſpute the paſſage with a whole army. A rivulet of ſalt water, which attends us all along this valley, might firſt point out the way, that art and neceſſity would afterwards improve. *The* Beeban, *or* Dammer Cappy.

Two leagues to the S.S.E. of the *Beeban*, is the *Accaba*, or *aſcent*; another dangerous paſs, the very reverſe of the *Beeban*. For here, as in the noted Mount *Sennis* in *Italy*, the road lies upon the narrow ridge of a high mountain, with deep valleys and precipices on each ſide; where the leaſt deviation from the beaten path expoſes the traveller to the almoſt inevitable danger of his life. Yet, (notwithſtanding all theſe difficulties) the common road from *Algiers* to *Conſtantina* lies over this ridge, and through the *Beeban*; being preferred to another, a little on the right hand, by being wider, and to *Wan-nougah* in being more direct. *The* Accaba, *or* Aſcent.

Mount *Atlas*, which, quite through the province of *Titterie*, as far as Mount *Jurjura*, ran nearly in a paralleliſm with the ſea coaſt, begins from thence to incline to the S.E. In the ſame direction likewiſe are the high mountains of *Wannougah* and *I-aite*; which are ſucceeded afterwards, though more in a paralleliſm with the ſea coaſt, by thoſe of the *Welled Selim*, *Muſtewah*, *Aureſs*, and *Tipaſa*, quite into the kingdom of *Tunis*. *The direction of this part of Mount* Atlas.

[2] *Plin.* l. v. c. 3. [3] Vid. Not. 1, 2, &c. p. 4.

Meſ-ſeelah. Three or four leagues to the ſouthward of Mount *I-aite*, is *Meſ-ſeelah*, the frontier town of this province to the weſtward. It is built upon the ſouthern ſkirts of the plains of *El Huthnah*, nine leagues to the S. S. W. of *Seedy Embarak Eſ-mati*, and ſixteen to the S. W. of *Seteef*; ſo that *Abulfeda*[1] muſt be greatly miſtaken in placing it only eighteen miles from *Conſtantina*. It is a dirty place, like other villages of this country; having its houſes built, either with reeds daubed over with mud, or elſe with tiles baked in the ſun. Here the *Algerines* had formerly a garriſon of three *Suffrahs*, which is changed at preſent into a ſmall body of *Spahees*, who have little duty upon their hands; and upon any inſurrection or diſturbance, (as there is no caſtle to protect them) have only their arms to truſt to. The air is too cold at this, as well as at other places upon the ſkirts of the *Sahara*, for the production of dates; and therefore the gardens that ſurround it, are only furniſhed with peach, apricot, and ſuch fruit trees, as are common to the more northern parts of *Barbary*. *Meſ-ſeelah*[2] denotes a ſituation like this, which borders upon a running water.

Plains of Majanah. At the ſame diſtance on the other, i. e. the N. ſide of *Jibbel I-aite*, we enter upon the plains of *Ma-janah*, ſhaded to the northward by the *Dra el Ham-mar*, and to the W. by the mountains of *Wannougah*. Theſe plains are both extenſive and fertile; but the many pools of ſtagnating water (as the name imports) that are left here in the rainy ſeaſon, and corrupt afterwards in the ſpring, occaſion a variety of agues and ſuch like diſtempers, as are common to other places in the like ſituation. We have ſeveral heaps of ruins diſperſed all over theſe plains; out of which the *Turks* have lately built a fort, called *Burg Majanah*, where they have a garriſon to watch the motions of the *Beni Abbeſs*, and other neighbouring *Kabyles* and *Arabs*.

Zammorah. Seedy Embarak Eſ-mati. Seteef, *the* SITIPHA Col. We have nothing further remarkable, 'till, paſſing by the village *Zammora*, i. e. *of olive trees*, and the ſanctuary of *Seedy Embarak Eſ-mati*, we come to *Seteef*, the ancient *Sitipha* or *Sitifi*, the *metropolis* of this part of *Mauritania*; which is recorded in hiſtory to have made a ſtout reſiſtance, upon the incurſions of the *Saracens*. This city, which I conjecture might have been a league in circuit, was built upon a riſing ground, that faces the S. but the *Arabs* have

[1] *Al Kaiem Billah Fathemita* condidit *Meſeela* An. *Heg.* 315. appellavitque eam *Al Mohammediah*. Inter *Coſtinam* and *Meſeelam* octodecim miliaria, et mons continuus. *Abulf.* ut ſupra.

[2] مسيلة (viz. سال fluxit aqua) *locus torrentis* ſeu *fluentis aquæ*. Vid. *Gol. Gig.* &c. in voce.

been

been ſo very ſevere to it, that there is ſcarce one fragment left us either of the ancient walls, pillars, or ciſterns of the *Romans*: the few remaining ſtructures being obviouſly the work of the later inhabitants. The fountains, which continue to flow very plentifully near the centre of the city, are equally delightful and convenient; and without doubt, gave occaſion formerly for many ingenious and uſeful contrivances in the diſtribution of the water. I found here the two following inſcriptions; the latter whereof is inſcribed in beautiful characters, ſix inches or more in length.

D. M. S.
C. IVLIVS
CALLIS
TIANVS
VIX. IXI.
H. S. E.

NINO. AVG. P.
GERM. TRIB. PO.
VS DIVI TRA
ER. AVG. MA.

The plains and rich paſture grounds of *Caſſir Attyre* lie a little to the ſouthward of *Sateef*. They are cultivated by the *Raigah*, a clan of *Arabs* famous for the breeding of cattle, particularly of horſes, which are reckoned the beſt in this kingdom. Here, and in ſeveral other diſtricts already deſcribed, πολυβότειρα, ἱππόβοτος, ἐριβώλαξ, and other the like fine epithets of *Homer*, might be well applied. The Σιτάφιον πεδίον likewiſe of *Ptolemy*, provided Σιτάφιον has any relation to *Sitipha*, might juſtly claim this ſituation. *Plains of* Caſſir Attyre, *or* Σιτάφιον πεδίον.

Near the *Raigah* are the *Ammer*, who are a powerful though infamous tribe; proſtituting, contrary to the practice of their brethren, their wives and daughters. Both theſe tribes drink of the *Booſellam*, the river of *Seteef*. *The* Raigah *and* Ammer.

Eight leagues to the S. E. of *Seteef*, are the ruins of *Taggah* and *Zainah*, ſituated at half a league's diſtance from each other, in a fruitful and champain country, below *Jibbel Muſtewah*; the chief abode of the *Welled Abdenore*, a very numerous and powerful clan. *Taggah* and *Zainah* are rarely mentioned apart; but, from their contiguity, are called jointly *Tagou-Zainah*. A little brook runs betwixt them; and at *Zainah*, (the only appellation I have met with in this country that bears any affinity with the ancient *Zama*, Taggah *and* Zainah, *or* Tagou-zainah.

once

once a royal city of the *Numidian* kings) we have, among other ruins, the remains of a triumphal arch, ſupported by two large *Corinthian* pillars. Upon the *frize* is the following inſcription, which fixes the *Diana* of the *Itinerary* at this place.

The DIANA.

IMP. CAES. M. SEVERO. PIO. FELICI. AVG. PONT. MAX. TRI. POT. PROVIDENTISSIMO. ET SANCTISSIMO. PRINCIPI. ET. ANTONINO. NOBILLISSIMO. CAESARI. PRINCIPI. IVVENTVTIS. DIANENSIVM. EX. DECRETO. D. D. P. P.

Diana likewiſe, as we learn from the *Itinerary*, was called *Diana Veteranorum*, from ſome *veteran* troops that might have there been ſtationed. In *Peutinger's* table alſo, we ſee at *Diana* a large temple, dedicated no doubt to the goddeſs of that name, the protectreſs of the *high ways*, which temple, as *Africa* was always fond of *Pagan* ſuperſtitions, might continue even a long time after this country was governed by *Chriſtian* princes.

Medraſhem. Five leagues to the E. of *Tagou-zainah*, upon the northern ſkirts of *Jibbel Aureſs*, we have a very remarkable ſepulchral monument, called *Medraſhem*, or *Mail' Caſhem*, i. e. *the treaſure of Caſhem*. It is nearly of the ſame faſhion with the *Kubber Romeah*, but differs in being larger, and in having the corniſh of the *baſe* ſupported with *Tuſcan*-like pilaſters. The *Arabs* imagine that an immenſe treaſure lies buried underneath it; and have therefore made the like attempts, as at the *Kubber Romeah*, to lay it open.

The diſtrict of Ai-yac-coute. The diſtrict, in the neighbourhood of this *Mauſoleum*, is called *Ai-yac-coute*; probably from the *Ain-yac-coute* [a], or *diamond* (i. e. tranſparent) *fountain*, that flows near the middle of it. Several fragments of *Roman* high ways, and other ruins, are ſcattered all over it; amongſt which the chiefeſt are thoſe of *Om-oley Sinaab*, a league or more to the weſtward of *Medraſhem*, in the way to *Tagou-zainah*.

Tattubt, *the* TADUTTI. *Tattubt*, bordering upon the *Ai-yac-coute* to the N. E. is about four leagues from *Om-oley Sinaab*, and eight to the S. S. W. of

[a] *This is the uſual name for the* diamond *in the ſeveral places, both of the* Levant *and* Barbary, *where I have been. The* זכוכית Zakoukit *in the book of* Job, xxviii. 17. *ſeems to be the ſame; and, being there joined with things of the greateſt price, may perhaps be much better rendered the* diamond *than* cryſtal, *as it is in our tranſlation. However* Golius *and others interpret it differently*, viz. Voce hac Orienti diverſæ appellantur gemmæ: ſiquidem *hyacinthi* ſuæ ſpecies quatuor numerat; rubram, flavam, cæruleam, et albam. Atque ita quoque *ſapphirus* et *chryſolithus*. Abſolute tamen intelligitur *hyacinthus rubra*; qui lapis vulgo *rubinus* dicitur. Vid. *Gol.* in voce ياقوت.

Conſtantina,

Conſtantina. This has been formerly a conſiderable city, but, at preſent, it is almoſt entirely covered with earth and rubbiſh. *Haſſan*, the *Bey* of this province, dug up lately out of theſe ruins, ſeveral beautiful *Granate* pillars, of twelve foot long; which may juſtly be reputed the moſt graceful ornaments of the new *moſque* that he has lately erected at *Conſtantina*. *Tattubt* ſeems to be the ſame with the *Tadutti* of the *Itinerary*; and, lying betwixt *Lambeſe* and *Gemellæ*, as the ancients called *Tezzoute* and *Jim-meelah*, will accordingly lay claim to this ſituation.

Ten leagues to the S. of *Taggon-zairiah*, and twelve from *Medra-ſhem*, are the ruins of the ancient *Thubuna*, as the preſent name *Tubnah* ſeems to inſinuate, and as *Ptolemy's* poſition of it, in the ſame meridian nearly with *Igilgili*, may farther confirm. It is ſituated in a fine plain betwixt the rivers *Bareekah*, and *Boo-ma-zooſe*; but the few remains of it are ſo much buried in ſand and rubbiſh, that it will be difficult to determine it's former extent. The opinion of the *Arabs*, that a large treaſure lies buried in theſe ruins, gave occaſion to the following *rhapſody*. Tubnah, *the* THUBUNA.

Mel Tubna taat thul athloulah. مال طبن تحت ظل اضلاله
Afer? Weis! la takoun toumah. لصفر فيس لا تكن طمع

The treaſure of Tubnah *lies under the ſhade of what is ſhaded.*
Dig for it? Alas! it is not there.

Seven leagues to the S. S. W. of *Tubnah*, and ſixteen to the S. E. of *Me-ſeelah*, is *Em-dou-khal*, a little village ſurrounded with mountains. Here we meet with the firſt plantation of date trees, though the fruit does not ripen to that delicacy and ſweetneſs as in the province of *Zaab*, that commences a little beyond it. Em dou khal.

The *Shott* is a large valley or plain, that runs, with few interruptions, betwixt two chains of mountains, from the neighbourhood of *Em-dou-khal*, to the weſtward of the meridian of *Meſ-ſeelah*. The word commonly ſignifies *the ſea-ſhore*, or *the banks* of ſome lake or river: but the meaning here is ſomewhat varied, and denotes *the borders* or *area* rather of ſuch a plain, as, according to the ſeaſons of the year, is either covered with ſalt, or overflowed with water. Several parts of the *Shott* conſiſt of a light oozy ſoil, which, after ſudden rains, or the overflowing of the adjacent rivers, are changed into ſo many quickſands, and occaſion no ſmall danger to the unwary traveller. *La Croix* (tom. v. p. 282.) was badly informed in affirming that all the rivers of this kingdom run from ſouth to north; ſince, beſides ſeveral others in a quite contrary direction, we have *The* Shott.

no fewer than five, and thoſe very conſiderable ſtreams, which empty themſelves from the northward into the *Shott*.

Muckat el Hadjar. Croſſing the *Boo-ma-zooſe*, over-againſt *Tubnah*, we have a large mountain of excellent free-ſtone, with a number of ſquare blocks, ready prepared for the builder. It is called *Muckat el Hadjar*, i. e. *the quarry*; and the *Arabs* have a tradition that the ſtones employed in building *Seteef* (and, without doubt, *Nic-kowſe*, *Jigbah*, and other neighbouring cities) were brought from this place.

Boo-muggar. Four leagues to the northward of this *Quarry*, is *Boo-muggar*, a fruitful little diſtrict, with ſome traces of ancient buildings. Betwixt

Nic-kowſe. it and *Ras el Aioune*, is the village of *Nic-kowſe* or *Ben-cowſe* as the *Turks* call it; where there is a garriſon of one *Suffrah*, a mud-walled rampart and three pieces of cannon. The inhabitants are chiefly *Zwowiah*, under the protection of *Seedy Laſſan*, their tutelar ſaint; the revenues of whoſe ſanctuary maintain two hundred *Thalebs*. *Nic-kowſe* is ſituated in a valley, with a circle of mountains at a moderate diſtance from it. A rivulet glides by it to the W. but being impregnated with too many nitrous particles, which the ſoil is here ſufficiently charged with, the water is ſeldom made uſe of in the offices of the table or kitchen. We have the traces here of a large city, with the remains, as uſual, of pillars, broken walls and ciſterns: but, at preſent, the *Nic-kowſians* make themſelves famous for the tombs, which they pretend to ſhew, of the *Seven Sleepers* [1]; whom they ſtrenuouſly maintain to have been *Muſſulmen*, and to have ſlept at this place.

The clans between Tubnah *and* Nic-kowſe. The powerful clans of the *Lakhder*, *Coſſoure*, and *Hirkawſe*, are maſters of the mountainous diſtrict to the eaſtward of *Tubnah* and *Nic-kowſe*, as far as *Jibbel Aureſs*, or *Eureſs*, as the *Turks* pronounce

Jibbel Aureſs, *the* MONS AURASIUS, *and* AUDUS. it. This, the *Mons Auraſius* of the *Middle Age*, and the *Mons Audus* of *Ptolemy*, is not one ſingle mountain, as the name would inſinuate, and as *Procopius* [2] ſeems to deſcribe it; but it is a large knot of eminences running one into another, with ſeveral beautiful little plains and valleys intervening. However, both the higher and the lower parts of it, are moſt of them of the utmoſt fertility, and ſtill continue to be the garden of this province. The whole mountainous tract may be a hundred and twenty miles in circuit, or three long days journey according to *Procopius*: and the northern part alone, which is viſited

[1] *The common opinion is that they ſlept in a cavern of* Mount Ochlon, *near the city of* Epheſus, *from* A. D. CCLIII. *to* A. D. CCCCVIII. viz. *from the* Decian Perſecution *to the time of the younger* Theodoſius. *Vid.* Gregoire de Tours De gloria martyrum, c. xcv. Diction. de Moreri, in voce DORMANS.

[2] *Procop. Bell. Vand.* l. ii. cap. 13. p. 266.

every year by a flying camp of the *Algerines*, is poſſeſſed by ſuch a number of clans, *viz.* the *Boozeenah*, *Laſſhaſh*, *Maifah*, and *Booaref*, that it requires forty of their ſtations to bring them all under contribution. *The clans of it.* However the *Turkiſh* ſoldiers have rarely the courage to penetrate ſo far to the S. E. as the *Ain Ou-heide*, which is a noted intermitting fountain, flowing only, as I was informed, on Fridays; at which time, it diſcharges itſelf, in a very plentiful flux of water, into the river of *Bag-gai*. The like rugged ſituation to the ſouthward, equally diſcourages them from ſubduing the *Near-dee*; a ſturdy community, and ſo well fortified by nature, that one of their *Marabbutts* expreſſed the danger of attacking them, by *eating fire*[1]. A high pointed impenetrable rock, the ſeat of their *Daſhkrah*, ſeems to be the *Petra Geminiani*[2], or the *Tumar* of *Procopius*, anſwering to all the circumſtances of thoſe places as they are recorded by that hiſtorian. Within our memory, *Umhaany*, a brave warlike princeſs, like one of the heroines of old, commanded ſeveral of theſe ſturdy clans, whom ſhe has often led out to battle, and animated them therein by her own courage and example.

Ain Ou heide. Near-dee.

There are a number of ruins ſpread all over theſe mountains, and their fruitful valleys; the moſt remarkable of which are thoſe of *L'erba* or *Tezzoute*, three leagues nearly in circumference, where indeed we have a great variety of antiquities: for beſides the magnificent remains of ſeveral of the city gates, (which, according to the tradition of the *Arabs*, were forty in all, and that when the place was in proſperity, it could ſend out of each of them forty thouſand armed men,) we have the ſeats and upper part of an amphitheatre; the frontiſpiece of a beautiful *Ionic* temple, dedicated to *Æſculapius*; a large oblong chamber, with a great gate on each ſide of it, intended perhaps for a triumphal arch; and *the Cubb' el Ar-roſah*, i. e. *the cupola of the bride*, as the *Arabs* call a little beautiful *Mauſoleum*, built in the faſhion of a *dome*, ſupported with *Corinthian* pillars.

L'erba, *or* Tezzoute, *the* LAMBESE *or* LAMBESA.

Theſe, and ſeveral other edifices of the like elegant ſtructure, ſufficiently demonſtrate the importance and magnificence of this city; which alone, without the authority of inſcriptions, might be a preſumptive argument for what has been already ſuggeſted, that *Tezzoute* or *L'erba* was the *Lambeſe* or *Lambaſa* of the ancients. The particular notice that is taken of *Lambeſe* in the *Itinerary*, ſhould induce us to ſuppoſe it to have been the moſt conſiderable city of

[1] La Shuff Neardy! Tackul el Nahar. *Don't ſee* (fight with) *the* Neardy: in ſo doing *you will* (catch *a Tartar*) *eat fire.*

[2] *Procop. bell. Vand.* l. ii. cap. 13. p. 286. & cap. 19.

that part of the country, where it was ſituated: and the reſpective diſtances and directions laid down by the ſame author, in conducting us thither, point out to us the ſituation of it in general; *viz.* that it made with *Theveſte* and *Sitifi* an irregular triangle, whoſe height was to be determined by the diſtance of *Cirta*. *Ptolemy* indeed, by placing *Sitifi* to the ſouthward of *Cirta* and *Lambeſa*, or in the ſituation of the preſent *Theveſte*, gives to each of theſe places a poſition very different from what they are placed in: however, by informing us, that the *Legio tertia Auguſta* was ſtationed at *Lambeſa*, he furniſhes us with a matter of fact, and ſo far inſtructs us, that where we find the *third legion*, as we do here at *Tezzoute*, there we may fix his *Lambeſa*. The word LAMBASENTIVM, in the firſt of the following inſcriptions, may further confirm it.

In an old Moſque.

IMP. CAESARE
M. AVRELIO ANTONINO
ARMENIACO
PARTHICO
TRIB. POTEST---PONT. MAX.
LAMBASENTIUM----
D. D. P. P.

Upon the frize of a temple dedicated to Æſculapius.

AESCVLAPIO ET SALVTI IMP. CAES. MARCVS AVRE-
LIVS ANTONINVS AVG. PON. MAX.
IMP. CAES. LVCIVS AELIVS VERVS AVG.

Upon a ſquare ſtone hard by it.

DEONTEIO FONTINIANO
STERNIO RVTINO
LEGATO AVGVSTORVM
PR. PR. COS. DESIGNATO
SEX TERENTIVS SATVR
NINUS LEG....
AVGVST.

Near

Near a triumphal arch.

IMP. CAES.
AELIO HADRIANO
ANTONINO AVG.
PONT. II. MAXIMO
TRIB. POTEST. X.
IMP. II. COS. III. P. P.
DEDICANTE
INDVIO CR...
LEG. AVG. PR. PR.

PRO CO....
...ISSIMO
BENIGNISSIMO
CAES.....
IANVARIVS
LEG. III. AVG.
.....

Near the amphitheatre.

MAXIMIANO
INVICTO AVG.
LEG. III. AVG.
P. F.

The *Kabyles* of theſe mountains of *Aureſs* have a quite different mien and aſpect from their neighbours. For their complexions are ſo far from being ſwarthy, that they are fair and ruddy; and their hair, which, among the other *Kabyles* is of a dark colour, is, with them, of a deep yellow. Theſe circumſtances, (notwithſtanding they are *Mahometans*, and ſpeak the common language of the *Kabyles*) may induce us to take them, if not for the tribe mentioned by *Procopius* [1], yet at leaſt for ſome remnant or other of the *Vandals* [2], who, notwithſtanding they were diſpoſſeſſed, in his time, of theſe ſtrong holds and diſperſed among the *African* families, might have had ſeveral opportunities afterwards of collecting themſelves into bodies, and reinſtating themſelves. *The* kabyles *of* Aureſs.

Betwixt *Jibbel Aureſs* and *Conſtantina* is the high mountain of *Ziganēah*; at the foot of which is *Phyſgēah*, formerly a city of the Ziganeah.

[1] *Procop. Bell. Vand.* l. ii. c. 13. [2] Id. l. i. cap. 22.

Romans; where there is a plentiful fountain and reſervoir, according to the import of the name, the water whereof was formerly conducted by an aqueduct to *Conſtantina*.

CIRTA, *or* CONSTANTINA.

Conſtantina [3], or *Cirta* [4], or *Cirta* [5] *Sittianorum*, as it was anciently called, is well ſituated by *Pliny*, XLVIII M. from the ſea. We learn from hiſtory [6], that it was one of the chiefeſt, as well as one of the ſtrongeſt cities of *Numidia*: the firſt of which circumſtances is confirmed by the extent of the ruins; the latter by its particular ſituation [7]. For the greateſt part of it has been built upon a *peninſular promontory*, as I may call it, inacceſſible on all ſides, except towards the S. W. where it was joined to the continent. This promontory I computed to be a good mile in circuit, lying a little inclined to the ſouthward; but to the northward it ended in a precipice of at leaſt a hundred fathom in perpendicular; from whence we have a beautiful landſkip over a great variety of vales, mountains, and rivers, which lie, to a great diſtance, before it. The view, which *Cuper* (in his notes upon *Lactantius de Mort. Perſecut.*) has given us of *Cirta*, is on the north ſide of it; though very incorrect, and not at all like it. To the eaſtward, our proſpect is bounded by an adjacent range of rocks, much higher than the city; but towards the S. E. the country is more open, entertaining us with a diſtant view of the mountains of *Seedy Rougeiſe* and *Ziganeah*. And in theſe directions this *peninſular* promontory is ſeparated from the continent by a deep narrow valley, perpendicular on both ſides, where the *Rummel* or *Ampſaga* conveys its ſtream. The neck of land to the S. W. where we find the principal gate of the city, is about the breadth of half a furlong, being entirely covered with broken walls, ciſterns, and other ruins, which are continued quite down to the river; and carried on from thence over a ſtrip of plain ground that runs parallel with the deep narrow valley already deſcribed. Such was the ſituation and

[5] Per *Africam* ſacerdotium decretum *Flaviæ* genti, *Cirtæque* oppido, quod obſidione *Alexandri* ceciderat, repoſito ornatoque, nomen *Conſtantina* inditum. *Aur. Victor* in Vita *Conſtantini*.

[4] *Cirta* ſ. *Cirtha*, *Punice*, קרתא *Cartha*, i. e. Civitas. *Boch. Chan.* l. i. cap. 24. *Kiriath* joined with *Arba*, *Jerim*, &c. in the H. Scriptures ſeems to be the ſame word.

[5] Cirta *Sittianorum* (viz. a militibus Sittianis) cognomine. *Plin.* l. v. c. 3. *P. Sittii meminere. Salluſt. in conjur.* Catil. c. 21. *Hirt. de B. Afr.* c. 36. *Dio.* l. xliii. p. 242. *App. de Bell. Civ.* l. iv. p. 996.

[6] *Jugurtha* — neque propter Naturam loci *Cirtam* armis expugnare poteſt. *Sall. Bell. Jug.* § 25. Exc. p. 7. B.

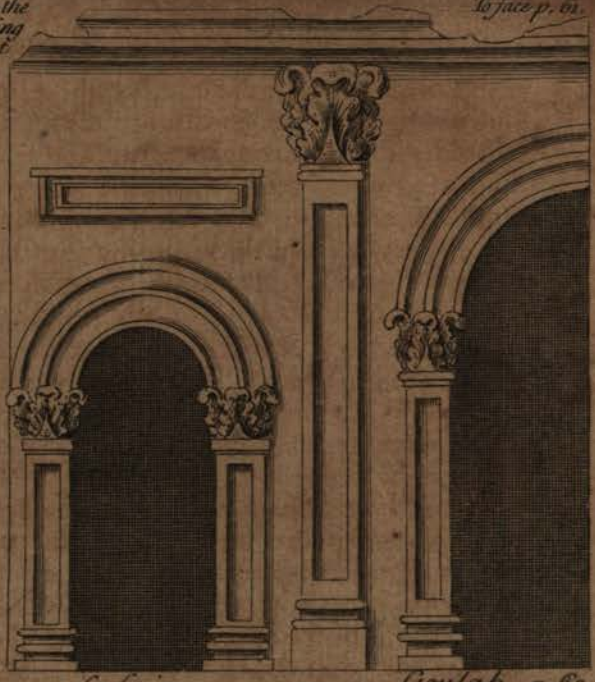
[7] See the plan or this city in *Ampl. Cuperi notis ad Lactant. de Mort. Perſec.* c. 44. which marks out the precipice; but is otherwiſe very incorrect, and gives us little knowledge of the place.

extent

On the Declivity from Kas-baue, six miles to the S. of Baboure, and N.E. of Situn, is the following Sepulchral Monument among others.

To face p. 61.

D. M. S
AELIA SATVRNI
NA PIA VIX · XI · H S.



Cassir

Goulah. p. 62.

See pag. 61.

To S.r BOUCHIER WREY of Tavesto
in Devonshire, Bar.t

extent of the ancient *Cirta*. But the preſent city has not the ſame dimenſions, being confined to the *peninſular* promontory only.

Beſides the general traces of a diverſity of ruins ſcattered all over this place, we have ſtill remaining, near the center of the city, thoſe capacious ciſterns, which received the water brought thither from *Phyſ-geah* by an aqueduct; a great part of which ſtill remains, and is very ſumptuous. The ciſterns, which are about twenty in number, make an *area* of fifty yards ſquare. The gate, I have mentioned, is of a beautiful reddiſh ſtone, not inferior to marble well poliſhed, and ſhining; the ſide poſts or pillars whereof are neatly moulded, in pannels. An altar of pure white marble makes part of a neighbouring wall; and the ſide of it in view preſents us with a well ſhaped *ſimpulum* in a bold *relief*. The gate towards the S. E. is in the ſame faſhion and deſign, though much ſmaller; and lies open to a bridge that was built over this part of the valley. This indeed was a maſter-piece in its kind; the gallery and the columns of the arches being adorned with corniſhes and feſtoons, ox-heads and garlands. The key-ſtones likewiſe of the arches are charged with *Caducei* and other figures. Below the gallery, betwixt the two principal arches, we ſee, in a bold *relief*, and well executed, the figure of a lady treading upon two elephants, with a large eſcallop ſhell for her canopy. The elephants, facing each other, twiſt their trunks together; and the lady, who appears dreſſed in her own hair, with a cloſe-bodied garment, like the women's riding-habit of our times, raiſes up her petticoat with her right hand, and looks ſcornfully upon the city. This *group*, in any other ſituation, might well be ſuppoſed to have belonged to ſome fountain: as fountains or ſpouts of water were ſometimes laid out in ſuch ludicrous and wanton deſigns. Upon a ſtone, in the river below it, I traced out the following words: CAI. IVLI SIGNINARI: as in a wall, near the northern precipice, where we have the baſes and pedeſtals of a magnificent portico, we ſee this broken inſcription:

The ruins of the ciſterns, aqueduct, and other antiquities.

The bridge.

AID. III VIR. PR
- - - - - - - - - - - -
RVSICADE BIS
PONTIFEX - - -
PERFECIT.

Below the bridge, the *Rummel* turns to the northward; where it runs near a quarter of a mile through a rocky ſubterraneous paſſage, deſignedly laid open in ſeveral places, for the greater conveniency of drawing up the water, and cleanſing the channel. This, according

The ſubterraneous paſſage of the Rummel.

to all appearance, ſeems to be an extraordinary proviſion of nature for the admiſſion of the river, which otherwiſe muſt have formed a moſt extenſive lake, and thereby laid a great part of the neighbouring country under water, before it could have found its way to the ſea.

The ruins of a triumphal arch.

Among the ruins to the S. W. of the bridge, upon the narrow ſtrip of land juſt now deſcribed, we have the greateſt part of a triumphal arch, called *Caſſir Goulah*, or the *Caſtle* (as they interpret it) *of the Giant*; conſiſting of three arches; the middlemoſt whereof, as uſual, is the moſt ſpacious. All the mouldings and frizes are curiouſly embelliſhed with the figures of flowers, battle-axes, and other ornaments. The *Corinthian* pilaſters, erected on each ſide of the grand arch, are pannelled, like the gates of the city, in a ſtyle and faſhion peculiar to *Cirta*.

Inſcriptions, &c. below the precipice.

Without the precincts of the city, under the great precipice, we meet with the following ſepulchral inſcriptions. The firſt of them, which is upon a *Cippus*, with the figure of a loaded beeve in *baſſo relievo* above it, and of a crab below it, makes one of the ſteps, as we deſcend to the lukewarm ſprings of *Seedy Meemon*, a *Marab-butt*, who lies there interred. Beeves are ſtill made uſe of in *Numidia* as beaſts of burthen.

M. MAGNI IVS--
FELIX QVIRIT---
SECR. ET IVS---
VIX. AN. XXXX.

POM-

POMPEIO
RESTITVTO
IVDEO
POMPEIA KARA
PATRA KARIS
SIMO
FECIT.

A quarter of a mile to the eaſtward of *Seedy Meemon*, the *Rummel* falls, from its ſubterraneous channel, in a large *Caſcade*. The higheſt part of the city, with the magnificent portico, already taken notice of, lyes above it; from whence criminals continue to be precipitated into the river, as they uſed to be in former times [1]. A little way beyond the *Caſcade*, is *Kabat-beer-a-haal*, as they call a neat tranſparent fountain, full of tortoiſes. Several ſtrange and fooliſh ſtories of their being dæmons, and the authors of fevers and other diſtempers, have been related of theſe animals by *J. Leo* and other credulous hiſtorians. *The* Caſcade *of the* Rummel.

Five leagues, or, according to the *Itinerary*, XXV M. to the N. W. of *Conſtantina*, is the city *Meelah*, the *Milevum* or *Mileu* of the ancients, built in the centre of a beautiful interchange of valleys and mountains. It is ſurrounded with gardens and plentifully ſtocked with fountains; one of which, bubbling up in the centre of the city, is immediately received into a large ſquare baſon of *Roman* workmanſhip. *Conſtantina* is ſupplied chiefly from this place with herbs and fruit: whoſe pomegranates, particularly, are of ſo large a ſize, and have withal ſo delicate a mixture of the tart and ſweet, that they are in great eſteem all over the kingdom. *Leo* and *Marmol* bear teſtimony likewiſe to the goodneſs of the apples, inaſmuch as they have thought fit to derive the very name of the city from that fruit. Meelah *or* MILEVUM, *or* MILLEU.

In travelling from *Conſtantina* to the eaſtward, we paſs by *Alleegah* and *Announah*, at each of which places there are large heaps of ruins. After them we come to the *Hamam Meſkouteen*, i. e. *the ſilent or inchanted baths*, ſituated on a low ground, ſurrounded with mountains. There are ſeveral fountains that furniſh the water, which is of an intenſe heat, and falls afterwards into the river *Ze-nati*. At a ſmall diſtance from theſe hot fountains, we have others, which, upon compariſon, are of as intenſe a coldneſs; and a little below them, ſomewhat nearer the banks of the *Ze-nati*, there are the Alleegah *and* Announah.

[1] Sui fratris uxorem ligato pondere lapidum in *Ampſagam* fluvium *Cirtenſem* famoſum jactari do demerſit. *Vict. Vit.* l. ii.

ruins

ruins of a few houſes, built perhaps for the conveniency of ſuch perſons, who came thither for the benefit of the waters. All this country, from *Conſtantina* to the *Zenati*, is a fruiful interchange of hills and valleys; ſome of which are all over interſperſed and diverſified with foreſts and plantations of olive trees.

Hamam, *or* Aquæ Tibilitanæ.

The diſtrict of the *Bookalwan*, with the *Aquæ Tibilitanæ* upon it, called only at preſent *Hamam*, or the *Baths*, lies to the eaſtward of the *Hamam Meſkouteen*, on the N. ſide of the river *Seibouſe*. On the other ſide is the diſtrict of *Mownah*, the poſſeſſion of the *Beni Sala*, a warlike tribe, with the ruins of *Gelma* or *Kalma*, as the *Turks* pronounce it. This undoubtedly is the *Calama* ſo much wanted in the old geography [2], which was ſituated by St. *Auſtin* [3], in an indetermined manner only, betwixt *Hippo* and *Conſtantina*, though nearer the former.

Gilma *or* Calama.

Tiffeſh, *The* THEVESTE.

Behind *Mownah* is *Tiffeſh*, the *Theveſte*, *Thebes* [4], *Thebæ*, or *Thebeſtis* of the ancients. This is the only city in the diſtrict of the *Henneiſhah* which has preſerved its old name, though, at the ſame time, it could not ſecure its walls from the devaſtations of the *Arabs*. It has been ſituated, like the reſt, in a fine plain, with a little rivulet running by it, and lies about nineteen leagues to the E. S. E. of *Conſtantina*.

The country of the Henneiſhah, *full of ruins.*

In the neighbourhood of *Tiffeſh* is the country of the *Hen-neiſhah*, who are not only a powerful and warlike, but a genteel and comely, tribe. To them and their gallant commander ſultan *Bwoa-zeeſe*, the *Algerines*, in their late wars with *Tunis*, have been often indebted for a compleat victory, or an honourable retreat. This gallant, tho' unfortunate prince, in the late revolutions at *Tunis*, was, by the perfidiouſneſs of his own father-in-law, *Aly Baſhaw*, the preſent *dey*, moſt villainouſly betrayed and inhumanly murdered: and, what is more extraordinary, his body was afterwards given to his drunken *janizaries*, to be made into *cabab*, and eaten: which was accordingly done with great feſtivity and rejoicing.

This diſtrict, the moſt fruitful as well as the moſt extenſive of *Numidia*, lies betwixt the rivers *Hameeſe* and *Myſki-anah*; the latter the moſt ſouthern, the firſt the moſt northern, branch of the *Me-jerdah*. There is ſcarce an acre of it, but what is watered by ſome choice fountain or rivulet; and there are few of theſe conveniences without having had ſome city or village built either upon or in the neighbourhood of them; which are now ſo miſerably defaced, that a heap

[2] *Cellar. Geogr. Antiq.* l. iv. c. 5. p. 122. [3] Contra Literas *Petiliani*, l. ii. c. 99. [4] Prætereo *Thebas Liber*, quas in *Africa* condidit *Liber* alter, quæ civitas nunc *Thebeſtis* dicitur. *Hieron. Præf.* l. xi. *Comment. ad Galatas.*

a heap of rubbiſh, without either name or inſcription, is all that remains of them at preſent.

To the ſouthward of the *Henneiſhah*, near the banks of the *Melagge*, is *Tipſa*, or *Tibeſſa*, the *Tipaſa* of the ancients, at preſent a frontier city and garriſon of the *Algerines*. This place, which enjoys a fine ſituation, with ſome mountains at a ſmall diſtance, ſtill preſerves the principal gate, ſeveral fragments of old walls, and other marks of the rank and figure it formerly obtained among the cities of *Numidia*. There is a large ſubterraneous quarry in the adjacent mountains; the ſame place perhaps that *Leo* was informed had been formerly inhabited by giants. Tipſa, *The* TIPASA.

The river *Melagge* runs a little to the northward of *Tipaſa*, being a continuation of the *Myſkianah*, which has its ſources at *Ain Thyllah*, in the weſtern confines of the *Henneiſhah*. A little further the *Melagge*, ſtill directing its courſe to the N. E. aſſumes the name of *Serrat*, and is the eaſtern boundary of this kingdom. This, when joined a little further with the *Sugeraſs*, which comes from *Millah*, *Hameeſe* and *Tiffeſh*, to the weſtward, aſſumes the name of *Mejerdah*, the ancient *Bagradas*, which will be further taken notice of hereafter. *The river* Melagge.

Near the weſtern banks of the *Serratt*, ten leagues from *Tiffeſh*, is *Collah*, *Gellah*, or *Gellah ad Snaan*, a conſiderable village, built upon a high pointed mountain, with only one narrow road leading up to it. This place, which is only to be conquered by hunger or ſurprize, is a convenient ſanctuary for the rebels and villains both of this and the neighbouring kingdom; where they are hoſpitably entertained, 'till their friends have either procured their pardons, or compounded for their crimes.

So much then for the more remarkable places and inhabitants of the *Tell*. That part of the *Sahara*, which lies behind this province, has, excluſive of the diſtant city of *Wurglah*, and the village *Engouſah*, the two conſiderable diſtricts of *Zaab* and *Wadreag*; with their reſpective numerous villages. Theſe, a collection of dirty hovels, are all built, in the ſame manner, with mud-walls and rafters of palm-trees; expreſſive probably of *Hazazen-Tamar*, (2 Chr. xx. 2.) or *Tuguria in palmeto ſita*; as *Bochart* (*Hieroz.* p. i. l. ii. c. 52.) explains that name. And as the inhabitants likewiſe are all of them alike occupied in cultivating the date tree, few of them will require a particular deſcription. *The* Sahara.

The diſtrict then of *Zaab*, the *Zebe* or *Zabe* [4] of the ancients, (once a part of the *Mauritania Sitifenſis*, as it was always of *Gætulia*) *The diſtrict of* Zaab, *The* ZEBE.

[4] *Zabe* regio ſupra (i. e. *ad auſtrum*) montem Auraſium, ad Mauritaniam pertinentem, *Sitiphin* metropolim habens. *Procop. de Bell. Vand.* l. xi. c. 20.

is a narrow tract of land, lying immediately under the mountains of *Atlas*, and has its villages, with few intermissions or vacant spaces betwixt them, reaching from the meridian of *Mes-seelah* to that of *Constantina*: of these, *Dousan*, *Toodah*, *Seedy Occ'ba*, *Biscara*, and *Oumilhennah*, receive their rivulets from the *Tell*; but the fountains and rivulets, which refresh the others, rise within the *Sahara*; or else they ooze immediately from the southern and adjacent skirts of *Mount Atlas*. The *Wed Adje-dee* or *Jid-dee*, i. e. *The River of the Kid*, receives these several streams; and running afterwards towards the S. E. loses itself in the *Mel-gigg*; an extensive tract of the *Sahara*, of the same saline and absorbent quality with the *Shott*, that has been already described. This river should be the *Garrar* or *Jirad* of *Abulfeda* [5]; and, as there is no other noted stream on this side the *Niger*, it may be the same likewise with *Ptolemy's Gir* [6]; though placed by him, among the *Garamantes*, who, according to all the geographical circumstances relating to them, must have been situated a great way further to the E. or S. E.

Its principal villages.

The Wed Adje-dee, *or* Gir.

Mell-gigg.

Biscara.

Biscara, the capital of *Zaab*, is the residence of a *Turkish* garrison, who have here a small castle, built lately by *Hassan*, the munificent *bey* of *Constantina*. The chief strength and defence of it lies in six small pieces of ordnance, with a few unweildy muskets, that are mounted likewise upon carriages.

Seedy Occuba.

Seedy Lascar.

The village of *Seedy Occuba*, or *Occ'ba* as the *Arabs* contract it, is famous for the tomb of the *Arabian* general of that name; and for that of *Seedy Lascar*, its tutelar saint. It is a common report, that the tower adjoining to the sanctuary of *Seedy Occ'ba*, will very sensibly tremble upon calling out, *TIZZA bil ras Seedy Occ'ba*, i. e. *Shake for the head of Seedy Occuba*. An effect something like this is produced in a tower at *Rheimes* in *France*, and with the like niceness in its frame or equilibre, by ringing one of the bells; the constituent parts of the fabrick being perhaps so particularly and harmoniously put together, as to act in concert and at unisons with such sounds. *Pliny* likewise relates something of the same nature (l. ii. cap. 96.) *Juxta Harpasa oppidum Asiæ cautes stat horrenda, uno digito mobilis; eadem, si toto corpore impellatur, resistens.* There is likewise near the land's end, in *Cornwall*, a high rock called the *Logging-Stone*, of the like moveable quality.

The traces of the Roman *architecture.*

The *Roman* masonry may be traced out all over this province:

[5] *Al Zeb* est territorium magnum, & fluvius *Garrar* s. *Jirad* in regione *Al Megreb*, cujus long. 30. 30. lat. 31. 30. *Abulf.*

[6] Ο Γεὶρ ὁ ἐπιζευγνύων τό, τε Οὐσάργαλα ὄρος καὶ τὴν φάραγγα τὴν Γαραμαντικὴν, ἀφ' οὗ ὁ ἐκτραπεὶς ποταμὸς ἐπέχει κατὰ θέσιν μοίρας μβ'. ις'. *Ptol. Geogr.* l. iv. c. 6.

and

and at *Ban-teuſe*, one of the ſouthern villages, there were lately dug up ſeveral ſtone coffins. It is very much to the honour of the *Romans*, to find how careful they have been, where theſe rivulets ran through a looſe and oozy ſoil, to ſupport their banks with walls of hewn ſtone, and to pave their beds with pebbles.

The eating the fleſh of dogs, for which the *Carthaginians* were formerly remarkable [7], (and from whence the *Canarii* might rather receive their name, than from their feeding, promiſcuouſly with dogs, upon the carcaſes of wild beaſts, according to *Pliny* [8]) continues in practice to this day among the inhabitants of *Zaab*. *The* Zaabians *are* Canarii, *or dog-eaters.*

WAD-REAG is another collection of villages, like thoſe of *Zaab*. They are reckoned to be twenty-five in number, ranged in a N. E. and S. W. direction; the capital of which is *Tuggurt*, built upon a plain, without any river running by it. For the villages of *Wad-reag* are ſupplied, in a particular manner, with water. They have, properly ſpeaking, neither fountains nor rivulets; but by digging wells to the depth of a hundred and ſometimes two hundred fathom, they never want a plentiful ſtream. In order therefore to obtain it, they dig through different layers of ſand and gravel, 'till they come to a fleaky ſtone, like ſlate, which is known to lie immediately above *The Bahar tâht el Erd*; or *The Sea below Ground*, as they call the *Abyſs*. This is eaſily broken through; and the flux of water which follows the ſtroke, riſes generally ſo ſuddenly and in ſuch abundance [9], that the perſon let down for this purpoſe has ſometimes, though raiſed up with the greateſt dexterity, been overtaken and ſuffocated by it. *The diſtrict of* Wad reag. *The wells from the* Abyſs.

Thirty leagues to the S. W. of *Tuggurt* is *En-gouſah*, the only village of many, in this ſituation, which ſubſiſted in the time of *Leo*. After *En-gouſah*, at five leagues diſtance to the weſtward, is the noted and populous city of *Wurglah*, the moſt diſtant community on this ſide the *Niger*. Theſe ſeveral cities and villages, which, together with thoſe of *Figig* and of *Beni Mezzab*, are very juſtly compared by the ancients [10] to ſo many *fruitful and verdant ſpots* or *iſlands*, in the En gouſah. Wurglah.

[7] *Juſt. Hiſt.* l. xix. cap. 1. [8] *Plin.* l. v. c. 1.

[9] Of the like guſhing, *riſing*, or aſcending nature, might poſſibly have been the *Beer* or *Well*, Numb. xxi. 17. *which the elders digged, and the people cut* (or hewed (כרוה) out of the rock) *by the direction of the law-giver*, (במשענתם) with their ſtaves. May it not rather be rendered, *with their* united *applauſe*, or clapping of hands; as שעב ſignifies in the *Chaldee?* For the digging or cutting a well with ſtaves, as it is in all verſions except the LXX, ſeems to be very incongruous and abſurd. But my learned friend, Dr. *Hunt*, ſupplies me with another interpretation of this difficult text, wherein במחקק which we render *by the direction of the law-giver*, may be expreſſed *by deſcribing* or *marking out* the figure or faſhion of *the well*, במשענתם *with their ſtaves.*

[10] Vid. *Strab. Geogr.* l. ii. p. 192. Εςὶ δ' ἐοικῦα Λιβύη παρδάλει, &c. *Dionyſ. Perieg.* l. clxxxi. Παρδαλέη δὲ, &c.

vaſt expanſe of a large deſert, might formerly belong to, and make up the greateſt part of, the country of the *Melanogætulians*. For, after *Gætulia*, *Ptolemy* reckons up the nations that were ſituated beyond it to the ſouthward; among which, the *Melanogætuli* and *Garamantes*, were the chiefeſt. Theſe nations certainly extended themſelves behind the greateſt part of that country, which belongs at preſent to the regencies of *Algiers*, *Tunis*, and *Tripoly*; or from the meridian of *Siga*, near *Tlemſan*, to the *Cyrenaica*, 35° further to the E. And as, incluſive of the *Bedoween Arabs*, there are no other nations, in this direction, beſides the *Figigians*, the *Beni Mezzab*, the inhabitants of *Wadreag* and *Wurglah*, to the weſt; and thoſe of *Gaddemz*, *Fezzan*, and *Oujelah*, to the eaſt: it is very probable, that the *Melanogætuli* muſt have been the predeceſſors of theſe weſtern *Libyans*: as the others to the eaſt, were, for the ſame reaſon, the ſucceſſors of the *Garamantes*. This ſeems to be a very clear and full account of the ſituation of thoſe diſtant communities, ſo much enquired after by *Cellarius*, and other later geographers: which likewiſe may have been too haſtily charged with inaccuracies and contradictions in the *Univerſal Hiſtory*, Vol. 17.

TRAVELS

TRAVELS

OR

OBSERVATIONS

RELATING TO THE

GEOGRAPHY

OF THE

KINGDOM

OF

TUNIS.

TOME I. PART II.

THE

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CHAP. I.

Of the kingdom of TUNIS *in general.*

THE kingdom of *Tunis* is bounded to the N. and E. with the *Mediterranean* ſea; to the W. with the kingdom of *Algiers*; and to the S. with that of *Tripoly*. It is, from the iſland *Jerba* in N. Lat. 33°. 30′. to *Cape Serra* in N. Lat. 37°. 12′. CCXX M. in breadth, and CLXX M. only in length: *Sbekkah*, the moſt advanced city of this kingdom to the W. lying in 8°. and *Clybea*, the fartheſt to the E. in 11°. 20′. E. Long. from *London*. *The limits and extent of this kingdom.*

Of the modern geographers, *Luyts* [1], by giving this kingdom 3°. of *Long*. and 4°. of *Lat*. ſeems to have been the beſt acquainted with the extent of it. For *Sanſon*, in placing *Cape Bon* in N. *Lat*. *The diſagreement of the modern and*

[1] *Ptolem. Geograph.* l. iv. cap. 3.

34°. 15′. and *Cabes* as he calls *Gabs* in N. *Lat.* 30°. ſituates it more than 3°. too far to the ſouth. *Moll* indeed brings it a few minutes too far to the N. but extends it to the S. beyond the parallel of *Tripoly*; as *Delisle* has likewiſe done in his royal map (as he calls it) of *Africa*. Whereas a remarkable chain of mountains, called the *Jib-beleah*, in the ſame parallel with the iſland *Jerba*, is the boundary betwixt this kingdom and that of *Tripoly*.

ancient geographers about it.

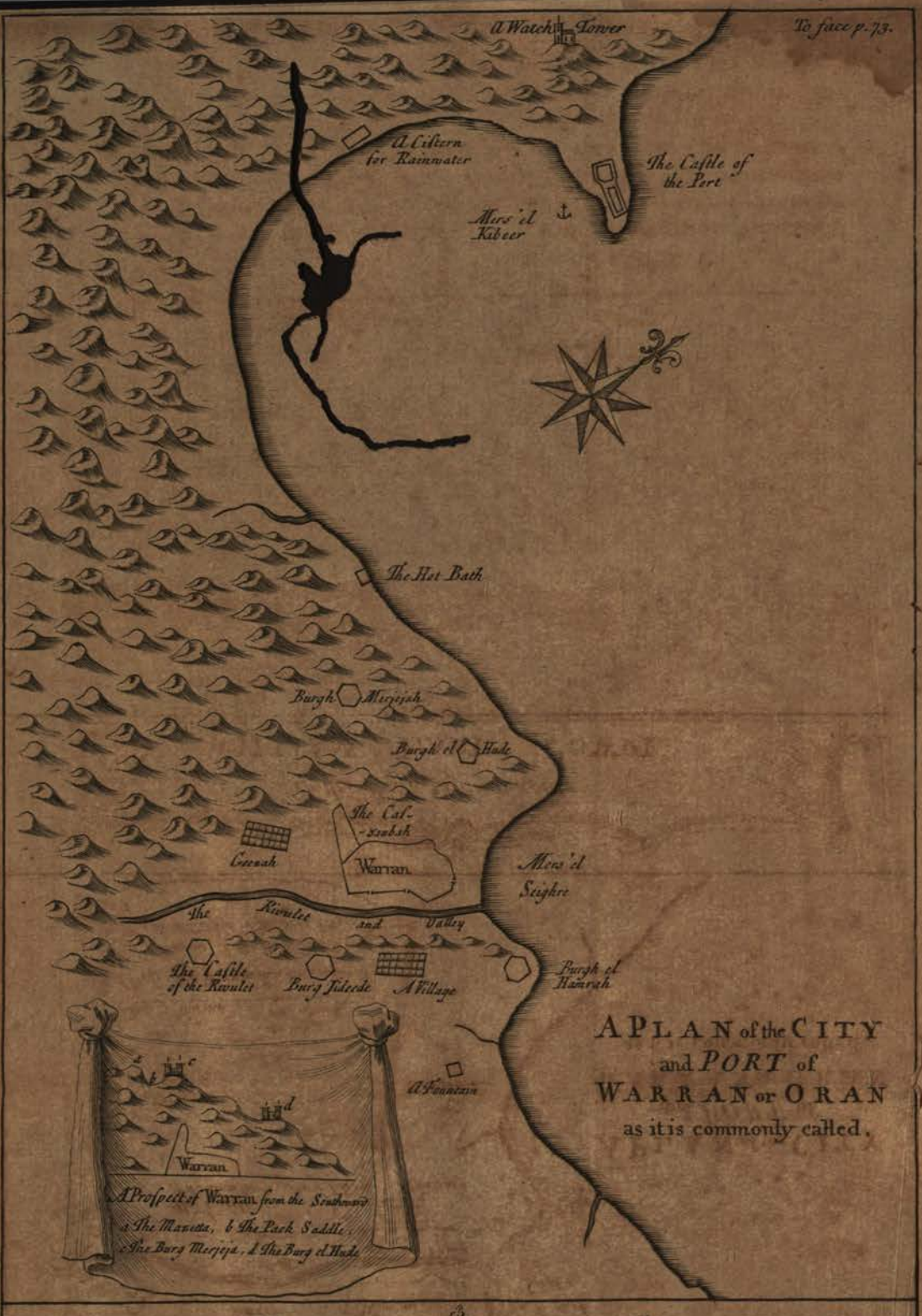
If we attend to the ancient geography, we ſhall find the like errors and diſagreements that have been taken notice of in the kingdom of *Algiers*. For *Ptolemy*, (beſides his poſition of *Carthage*, and ſo reſpectively of other places, 4° too far to the S.) makes the latitudinal diſtance betwixt the promontory of *Apollo*, i. e. *Cape Zibeeb*, and the iſland *Meninx*, i. e. *Jerba* [2], to be no more than 1°. 55′. inſtead of 3°. as I find it. The *Itinerary* alſo, though in many caſes a much better conductor than *Ptolemy*, yet, as *Ricciolius* [3] has already obſerved, he may well be charged with faults and contradictions, proper notice whereof will be taken in their reſpective places: *Pliny* [4] too, by putting the greateſt part of theſe cities in an alphabetical order, very little inſtructs us: even in the enumeration of the maritime towns of *Bizacium* [5], (where he ſeems to follow ſome method) yet, by placing *Leptis* before, i. e. to the northward of *Adrumetum* and *Ruſpina*, he inſinuates thereby, that the latter was ſituated at a greater diſtance from the leſſer *Syrtis*, contrary to what appears from *Hirtius* and others. The ſame author likewiſe, in making the province of *Bizacium* CCL M. only in compaſs [6], falls vaſtly ſhort of what it is found to be by obſervation. For if we bound *Bizacium* to the N. and S. with the parallels of *Adrumetum* and *Tacape*, and to the W. with *Sufetula*, (one of the weſtern cities of it) we ſhall have a circuit of at leaſt D *Roman* miles, i. e. twice the number which are laid down by that author.

The diviſion of this kingdom into

It may be farther obſerved, that this kingdom is not divided into provinces, and governed by provincial *Beys* or *Viceroys*, like that of *Algiers*; but the *whole* is under the immediate inſpection of the *Bey* himſelf; who collects the tribute in perſon. For which purpoſe he viſits, with a flying camp, once every year, the principal parts of it; traverſing, in the ſummer ſeaſon, the fertile country in the neighbourhood of *Keff* and *Bai-jah*; and in the winter, the ſeveral diſtricts betwixt *Kairwan* and the *Jereed*. And as theſe two circuits very nearly correſpond with the *Regio Zeugitana*, (or *Zeugitania*, as I

the ſummer and winter circuits, anſwering to the

[2] *Ptolem. Geogr.* l. iv. c. 3. [3] *Geogr.* l. iii. c. 10. [4] Lib. v. c. 4. [5] Id. ibid. [6] Id. ibid.



A PLAN of the CITY and PORT of WARRAN or ORAN as it is commonly called.

To the Right Honourable
WILLIAM EARL COWPER

ſhall call it) and the *Bizacium* of the ancients, I ſhall deſcribe this kingdom under thoſe diviſions. The *Zeugitania* therefore, or the *ſummer circuit*, will take in that portion of it which lies to the northward of the parallel of the gulph of *Hamamet*; as *Bizacium*, otherwiſe called the country of the *Libyphœnices* [1], will contain the other part which lies beyond it to the ſouthward. *Zeugitania, and Bizacium of the ancients.*

CHAP. II.

Of the ſea coaſt of the Zeugitania, *or the* ſummer circuit.

THE *ſummer circuit* therefore, as it is bounded by the river *Zaine*, or *Tuſca*, will anſwer to the *Regio Carthaginienſium* of *Strabo* [2]; to the *Regio Zeugitana* and the *Africa Propria* of *Pliny*, *Solinus* [3], *&c*; to the eaſtern part of the *Africa* of *P. Mela* and *Ptolemy* [4]; to the *Provincia Proconſularis* of the *Notitia*; to the *Provincia Vetus* of the old hiſtorians [5]; and to the *Zeugis* of *Æthicus* [6]. It is much better inhabited, particularly the *Frigeah* [7], (as they ſtill call thoſe parts of it which lie near *Keff* and *Baijah*) than any portion of the neighbouring kingdom of the like bigneſs; having a greater number of cities, villages, and *dowars*; where there is likewiſe a greater appearance of affluence, proſperity, content, and chearfulneſs, owing, no doubt, to fewer inſtances of ſeverity and oppreſſion in the government. Such was the happy condition of this country, under *Haſſan ben Aly*, A. D. 1727. but ſince that time, after that worthy prince was cruelly murdered by his nephew *Aly Baſhaw*, all things continue in the greateſt confuſion; nothing heard of but the moſt flagrant inſtances of tyranny, oppreſſion, and barbarity. *The general deſcription of the ſummer circuit.*

Leaving therefore the iſland of *Tabarca*, five leagues to the S.W. we go round, or double (in the mariners phraſe) cape *Negro*, where the *French African Company* have a ſettlement. The high-pointed rocky iſland *Ialta*, the *Galata* of the ancients, lies a few leagues to the N.W. after which we arrive at cape *Serra*, the moſt advanced part of *Africa* to the N. At the half way from this cape to the

[1] *Strab. Geogr.* l. xvii. p. 1192. [2] Id. l. ii. [3] *Plin.* l. v. c. 4. *Sol. Polyhiſt.* c. 17. *Æthic. Coſmogr.* p. 63. [4] c. 7. [5] *Dion. Hiſt. Roman.* l. xliii. p. 245. Ed. Steph. [6] *Coſmogr.* [7] *Frigeah*, a corruption doubtleſs of the ancient name *Africa*.

white promontory, we paſs by three low flattiſh iſlands, called the *Frati* or *Brothers*, lying not far from the continent.

Cape Blanco, *or the* Promontorium candidum.

The *white promontory*, or cape *Blanco*, or (which is ſtill the ſame, as it is called by the inhabitants) *Ras el Abead*, is of a white chalky ſubſtance; upon which account it may be well taken, not only for the *promontorium candidum* of *Pliny*, but likewiſe for the *promontorium pulchrum* of *Livy*, where *Scipio* landed in his firſt *African* expedition [8]. That this was the *promontorium candidum*, (beſides the colour of it, and the tradition of the ſame name to this day) we have this further to urge, that *Hippo Diarrhytus*, according to the deſcriptions of *Mela* [9] and *Pliny* [1], lies in the very gulph, which is formed by this *cape* and *that* of *Apollo* [2]. If then we may (particularly with regard to this point in diſpute) take *pulchrum* and *candidum* for ſynonymous terms, we want no farther proof that this was alſo the *promontorium pulchrum*.

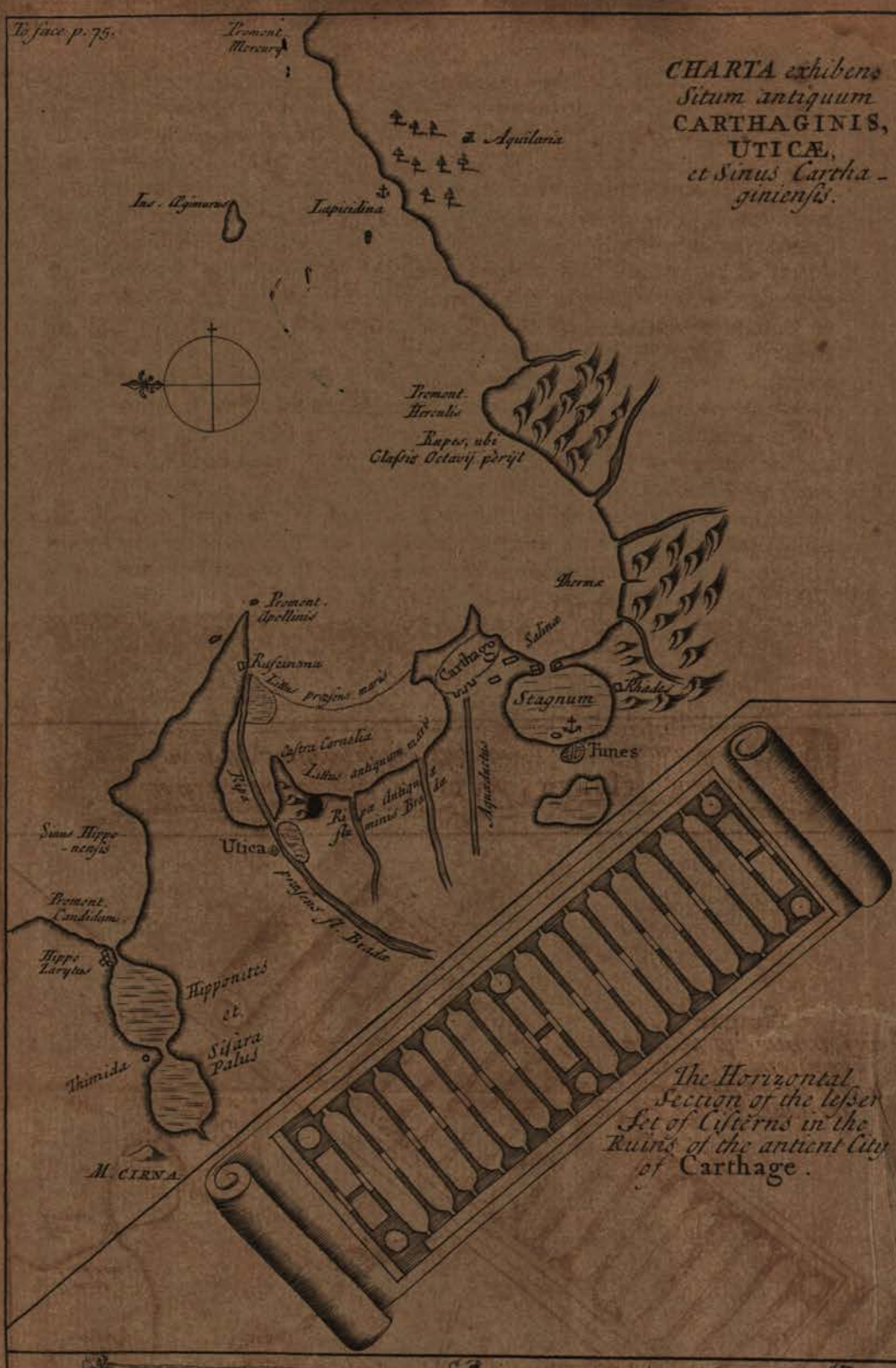
Beſides, *Livy* [3] informs us, that, when *Scipio* was in ſight of the *promontory of Mercury*, (or cape *Bon*, as it is now called) he did not think fit to direct his courſe thither; but the ſame wind (an eaſterly one, we may ſuppoſe, from the hazy quality of it,) continuing, he ordered that ſome convenient place for landing ſhould be pitched upon [*infra*] *below* it, i. e. as we may conjecture, to the weſtward. But there being no other promontories, beſides thoſe of *Apollo* and the *candidum* in this direction, the *promontorium pulchrum* and *candidum* muſt conſequently be the ſame.

Xylander indeed, as he is quoted by Sir *Walter Rawleigh*, (p. 963.) ſuppoſes the place where *Scipio* landed to have been at cape *Bon*: but as this, without queſtion, is the *promontory* of *Mercury*, ſo it could by no means be the place. *Livy* alſo acquaints us, as has been already obſerved, that *Scipio* did not land there, but at ſome other place *below* it. Now as *infra* cannot be ſuppoſed to imply a ſouthern direction, as well from the difficulty that *Scipio* would thereby have had in landing upon the eaſtern ſhore of *Africk*, as for the neceſſity there would have been afterwards of paſſing by *Tunis* and *Carthage*, in his intended journey towards *Utica*, (too daring an enterprize certainly at that time;) ſo there are not wanting authorities for rendering *infra*, as I have done, to the weſtward. Thus the courſe of ſailing from the *ſtraits* of *Gibraltar* to the *Levant*, is ſtill called going *up* the *Mediterranean* ſea; as in returning from thence to *Gibraltar*, we are ſaid to ſail *down* it. *Virgil* likewiſe, in placing *Italy* betwixt

[8] *T. Liv.* l. xxix. c. 27. [9] *P. Melæ Orb. deſcr.* l. i. c. 7. [1] *Plin.* l. v. c. 4.
[2] *Apollo*, or *Zibeeb*, as it is now called. [3] Ut ſupra.

the

To face p. 75.



CHARTA exhibens Situm antiquum CARTHAGINIS, UTICÆ, et Sinus Carthaginiensis.

The Horizontal Section of the lesser Set of Cisterns in the Ruins of the antient City of Carthage.

To the Honourable Sr. WILLIAM CHAPPLE Knight, One of the Justices of his Majesties Court of Kings Bench.

the *Adriatick* ſea (to the eaſt,) and the *Tyrrhene* (to the weſt) makes uſe of *infra*[4], in the ſame ſenſe with *Livy*, *viz.* to denote a poſition to the weſtward. The *promontorium pulchrum* therefore, as I have ſuppoſed, muſt be the ſame with the *candidum*, or *white promontory*, as it is univerſally called to this day.

Bizerta, *the* Hippo Diarrutus, Diarrhytus, *or* Zarito.

Eight miles to the ſouthward of this *cape*, at the bottom of a large gulph, is the city *Bizerta*, pleaſantly ſituated upon a canal, betwixt an extenſive lake and the ſea. It is about a mile in circuit, defended by ſeveral caſtles and batteries, the principal of which are towards the ſea. *Bizerta* is a corruption of the *Hippo Diarrhytus* or *Zaritus* of the ancients; though the preſent inhabitants derive it from their own language, and affirm it to be the ſame with *Benſhertd*, i. e. *the offspring of a canal* or rivulet. Though this *etymology* cannot be received, yet it is ingenious enough, as it in ſome meaſure falls in with the meaning of the *Diarrhytus* of the *Greeks*, and with the *Aquarum Irrigua*, as that appellation ſeems to have been tranſlated by *Pliny*.

The lake of Bizerta.

For the lake, upon which *Bizerta* is ſituated, has an open communication with the ſea; and, according to an obſervation of the younger *Pliny*[5], is either continually receiving a briſk ſtream from the ſea, or elſe diſcharging one into it. In the hotter ſeaſons (nay ſometimes when the weather is calm and temperate in winter,) the ſame *phænomenon* that has been taken notice[6] of betwixt the *Atlantic* ocean, and the *Mediterranean* ſea, is to be obſerved betwixt the latter ſea and this lake; what the lake loſes at theſe times in vapour, being proportionably ſupplied from the ſea; which then runs very briſkly into the lake, to make up the *Equilibrium*. The like happens when the winds are northerly; whereby a great quantity of water is uſually accumulated upon the ſouthern coaſt of theſe ſeas. But when the winds are from the ſouthward, (whereby the water is blown away from this coaſt) or when any conſiderable rains have fallen in the adjacent parts (whereby it receives a greater ſupply of water than is expended in vapour) then the contrary happens, and the lake empties itſelf into the ſea.

The port.

The channel of communication betwixt the lake and the ſea, is the port of *Hippo Diarrhytus*, which ſtill receives ſmall veſſels;

[4] An mare, quod *ſupra*, memorem; quodque alluit *infra*?
Virg. Georg. ii. ℣ 158.
Supra, i. e. ad partem ſuperiorem, hoc eſt, orientem verſus ad Venetias. *Infra*, i. e. a parte inferiori; hoc eſt, mare Tyrrhenum, quod Inferum vocant, occidentem verſus. Vid. *B. Aſcenſii* et *Donati annot. in locum.*

[5] Eſt in *Africa Hipponenſis* colonia, mari proxima: adjacet ei navigabile ſtagnum, ex quo in modum fluminis æſtuarium emergit, quod, vice alterna, prout æſtus aut repreſſit aut impulſit, nunc infertur mari, nunc redditur ſtagno. *Plin. Ep.* xxxiii. l. 9. *ad Caninium.* [6] Vid. *Phil. Tranſ.* N°. 189. p. 366. *Lowth. Abridg.* vol. 2. p. 108.

though it muſt have been formerly the ſafeſt as well as the moſt beautiful haven of this part of *Africa*. There are ſtill remaining the traces of a large pier, that was carried out into the ſea, to break off the N. E. winds; the want whereof, together with the great averſion in the *Turks* to repair it, will in a ſhort time make this haven uſeleſs, which, in any other country, would be ineſtimable.

Its different ancient names. *Scylax*, in his deſcription of this city, calls it only *Hippo*, though at the ſame time he takes notice of the lake upon which it was ſituated. *Diodorus* 7 relates the ſame, but gives the name *Hippouacra* to it, in regard perhaps to the neighbouring promontory. By the direction of *Scipio's* marches from the *promontorium pulchrum* to *Utica*, there is room likewiſe to conjecture, that this ſhould be the *rich* anonymous town, which is mentioned by *Livy* 8. And indeed, provided the *Turks* were proper encouragers of trade and induſtry, no place certainly could lay a better claim to that title than *Bizerta*; inaſmuch as, beſides fiſh and fruit of all kinds, it abounds with corn, pulſe, oyl, cotton, and a variety of other valuable productions.

The SINUS HIPPONENSIS. The gulph of *Bizerta*, the *Sinus Hipponenſis* of the ancients, is a beautiful ſandy inlet, near four leagues in breadth. The bottom of it being low, gives us a delightful proſpect, through variety of groves and plantations of olive trees, a great way into the country. But, to the eaſtward, the eye is bounded by a high rocky ſhore, which reaches as far as cape *Zibeeb*; a place ſo called, from the great quantity of *Zibeeb*, or raiſins, that are made upon it. The eaſtern extremity of this *cape* is remarkable for the whiteneſs of it's cliffs, and for having the *Pil-loe*, (as theſe people call) a high pointed rock, in the ſhape of their favourite diſh of that name, which is placed below it. Betwixt this and the *white promontory* are ſome low flat iſlands, called the *Cani* or *dogs*, which were the *Dracontia* of the ancients, and ought to be carefully avoided by the mariners.

Cape Zibeeb. *The* Pil-loe.

Cape Zibeeb, *the* promontorium Apollinis. Cape *Zibeeb*, the *promontorium Apollinis* of the ancients, makes the weſtern point (as cape *Bon* or *Ras-addar*, the *promontorium Mercurii*, at eleven leagues diſtance, does the eaſtern) of the *ſinus alter* of *Zeugitania*, (as *Pliny* ſtyles it) or the gulph of *Tunis*, according to the preſent name. *Zowamoore*, the *Zimbra* of our ſea charts, and the *Ægimurus* of the ancients, lies betwixt theſe promontories, but

Zowamoore, *the* ÆGIMURUS.

7 Εξρατοπέδευσεν (Agathocles) ἐπὶ τὴν Ἵππυ καλουμένην ἄκραν, ὑχυρωμένην φυσικῶς τῇ παρακειμένῃ λίμνῃ. *Diod. Sic.* l. xx.

8 *Scipio* (expoſitis apud Promontorium pulchrum copiis) non agros modo circa vaſtavit, ſed *urbem* etiam proximam Afrorum ſatis *opulentam* cepit. *Liv.* l. xxix. 28.

nearer

nearer the latter, in the very mouth of the gulph [9]; which, being remarkable for the great depth as well as breadth of it, might very juſtly be named by *Virgil* [1], *ſeceſſus longus*, *a long receſs*. The iſland *Gamelora* is a little way from cape *Zibeeb* to the eaſt; and four miles to the weſtward, within the *cape*, is *Porto Farina*, called, by the inhabitants, from an ancient *ſalt-work* hard by it, *Gar el Mailah*, i. e. *the cave of ſalt*. This place (as well as *Bizerta*) has been miſtaken by ſeveral geographers and hiſtorians [2] for *Utica*; whereas it ſeems to be the very port [3], whither the *Carthaginian* fleet retired, the night before they engaged with *Scipio* near *Utica*. *Livy* tells us, that the *Africans* called it *Ruſcinona* [4], a word doubtleſs of *Phœnician* extraction; and as the firſt part of it, *Rus* or *Ras*, i. e. the *cape*, well anſwers to the ſituation; ſo the latter *(annona)* may, I preſume, be of the like import with the preſent name, and denoting the great quantity of corn and proviſions, that were ſhipped off, as they continue to be, from this place. This port, eſpecially the *Cothon*, or inward part of it, is ſafe in all accidents of weather, and opens into a large navigable pond, formed by the *Me-jerdah*, which at preſent diſcharges itſelf through it, in its way to the ſea.

Iſl. Gamelora.

Porto Farina, *or* Gar el Mailah, *the* RUSCINONA.

Its Cothon.

The *Me-jerda*, the *Bagrada* [5], or *Bagradas*, or *Brada*, ſo famous in hiſtory, is equal to the *Iſis* united with the *Cherwell*. It continues winding, during it's whole courſe, through a rich and fertile country; and becomes thereby ſo well ſaturated with ſoil [6], that it is of the ſame complexion with the *Nile*, and has the ſame property likewiſe of making encroachments upon the ſea. And to this we may attribute not only the many changes and alterations, which appear to have been made, at one time or other, in the channel of it; but likewiſe that an open creek of the ſea, into which the *Me-jerdah*, no longer than a century ago, diſcharged itſelf, is now circumſcribed by the mud, and become a large navigable pond, the *anti-harbour*, as we may call it, to *Port Farina*.

The river Me-jerdah, *or* BAGRADA.

The quality of the Me-jerdah.

[9] *Liv.* l. xxx. § 24. [1] *Virg. Æn.* lib. i. 163.

[2] Utica, hodie Farinæ Portus. *Thuan.* l. vii. p. 605.

[3] Claſſis *Carthaginienſis* ſub occaſum ſolis ſegni navigatione in portum (*Ruſcinonam Afri* vocant) claſſem appulere. *Liv.* l. xxx. 10. ראש אנונא f. *promontorium Annonæ* vel frumenti, ut *Annona* forſan ſignificet. Vid. *Buxt. Lex. Rab.*

[4] Id. ut ſupra. [5] *Strabo*, l. xvii. p. 1189. *P. Mela*, l. i. c. 7. *Plin.* l. v. c. 4.

[6] *Bochart* deduceth the name from ברכתא *Bracĕtha*, a pond. Vid. l. i. c. 24. agreeably to the deſcription of the poet:

Turbidus arentes lento pede ſulcat arenas
Bagrada, *non ullo Libycis in finibus amne*
Victus limoſas extendere latius undas,
Et ſtagnante vado *patulos involvere campos*. Sil. It. l. vi. 140.

That

The changes in the channel

That the *Me-jerdah*, in the time of *Scipio*, lay betwixt *Carthage* and the *Caſtra Corneliana*, and not where we find it at preſent, appears, as well from the circumſtance of landing the ambaſſadors [7], after they departed for *Carthage*, at the river *Bagrada*; (the neareſt place we may ſuppoſe for that purpoſe) as from *Curio's* [8] leaving *Rebilus* at the ſame river, whilſt he himſelf is ſaid to have advanced farther to view the *Caſtra Corneliana*. Agreeably to theſe accounts, *Ptolemy* places the mouth of it 10′. only to the weſtward of *Carthage*; a ſituation which falls in with the ſanctuary of *Seedy Ammer Bucktewah*, where there is the ancient bed of a river, with a large mountain, (perhaps one of thoſe taken notice of by *Polybius* [9]) that ends in a precipice above it. And it may be farther obſerved, that in travelling from this ſanctuary to *Gellah*, we ſee the interjacent plains diſperſed all over with pine-apples, trunks of trees, and other tokens of large inundations. Beſides the ancient channel juſt now mentioned, we paſs over others, which, to all appearance, muſt have been, at one time or other, either the natural or the occaſional beds of this river. For as the whole extent of the ſea ſhore, from *Carthage* to *Port Farina*, is very little higher than the ordinary level of the ſea, and thereby lies expoſed to the ravages of the E. and N.E. winds; it is poſſible that the mouth of the *Me-jerdah* (as well as of other rivers in the like ſituation) might from time to time be ſtopped up; as we find indeed it actually was in the time of *Polybius* [1]. Being therefore forced, under ſuch circumſtances, to find out one new channel after another, as each of them in its turn was filled up, or the communication with it cut off; the *Me-jerdah*, I ſay, might at laſt gradually retire under cape *Zibeeb*, where thoſe winds could give it no diſturbance. Yet even in the preſent ſituation, there is room enough to apprehend that in a few years the channel will return again to the ſouthward. For the navigable pond, which I have mentioned, continues to be every day more and more choaked up with mud and ſlime; whilſt the mouth (or *bar*, in the mariners ſtile) of the river, which, 'till of late, admitted veſſels of the greateſt burthen, is now too ſhallow to receive one of their ſmall *cruiſers*, unleſs it be diſcharged of its lumber and ballaſt.

[7] Legati petierunt a magiſtratibus, ut naves mitterent, quæ ſe proſequerentur. Datæ triremes duæ cum ad *Bagradam* flumen perveniſſent, unde *Romana* caſtra conſpiciebantur, *Carthaginem* rediere. *Liv.* l. xxx. 25.

[8] Bidui iter progreſſus (*Curio* ſc. ex *Aquilaria*) ad flumen *Bagradam* pervenit: ibi *C. Caninium Rebilum* legatum cum legionibus relinquit: ipſe cum equitatu antecedit ad caſtra exploranda *Corneliana*. *Cæſ. de bell. civ.* l. ii. 24.

[9] *Polyb. hiſt.* l. i. p. 75, 76.

[1] Id. ibid.

Such

Such revolutions having happened to the *Bagrada*, the famous city *Utica*, which we learn[2] was ſituated to the northward of it, is now to be enquired after to the ſouthward, as will appear from the following conſiderations. For, laying aſide the authority of *Ptolemy*, (who very erroneouſly places it 20′. to the eaſtward, inſtead of ſo many nearly, as it ſhould be, to the weſtward of the *promontorium Apollinis)* let us examine the other geographical and hiſtorical circumſtances that are left us of this place.

Boo-ſhatter, *the* UTICA *or* ITYKH.

As then all of them agree, that *Utica* was a maritime city, ſituated betwixt *Carthage* and the *promontory of Apollo*, we are to ſearch for it upon the interjacent ſea-coaſt. But here are no ruins at all to be met with in this ſituation: there is no eminence[3], under which *Utica* is ſaid to have been built; there is no promontory[4], which lay at a ſmall diſtance to the E. or N. E. and formed the harbour: On the contrary, the whole extent of the ſea ſhore, from *Carthage* to the *Me-jerdah*, lies in a ſemicircular form; and the land, for ſome miles behind it, very ſmooth and level. *Utica* therefore cannot be found upon the ſea coaſt, according to the preſent ſhape and faſhion of it, by any of thoſe tokens and characteriſtics that are left us of it by the ancients.

Utica, *antiently a maritime city*:

But upon the ſuppoſition that the ground, to the breadth of three or four miles from the ſea ſhore, ſhould appear to be an acquiſition to the continent, occaſioned, as above, by the eaſterly winds, and the copious addition of mud that is left at every inundation by the *Me-jerdah*; if this river, by frequently ſhifting its channel, took at laſt the advantage of the lake[5], that lay betwixt *Utica* and the *Caſtra Corneliana*, and forced itſelf, by that way, into the ſea; then we may very juſtly fix *Utica* at a place called at preſent *Boo-ſhatter*; where, beſides the eminence taken notice of by *Livy*, we have a great variety of old walls, a large aqueduct, ciſterns to receive the water, and other traces of buildings of great extent and magnificence. Theſe ruins lie about XXVII *Roman* M. from *Carthage*, as the diſtance is recorded in the *Itinerary*; and behind them, towards

Now at ſome diſtance from the ſea.

[2] Vid. *Scylac. Peripl.* p. 46. *Strab.* l. xvii. p. 1188. *Plin.* l. v. c. 4.

[3] Imminente prope ipſis mœnibus *(Uticæ)* tumulo. *Liv.* l. xxix. § 35.

[4] *Scipio* caſtra hyberna in promontorio, quod tenui jugo continenti adhærens in aliquantum maris ſpatium extenditur, communit. *Id. ibid.* Id autem *(caſtra Corneliana)* eſt jugum directum, eminens in mare, utraque ex parte præruptum atque aſperum; ſed paullo tamen leniore faſtigio ab ea parte quæ ad *Uticam* vergit. Abeſt directo itinere ab *Utica*, paullo amplius paſſuum mille: ſed hoc itinere eſt fons, quo mare ſuccedit; *longe lateque is locus reſtagnat*; quem ſi quis vitare voluerit, VI millium circuitu in oppidum perveniet. *Cæſ. bell. civ.* l. ii. 22.

[5] Vid. not. ult.

the

the S. W. we are entertained with a view of the *large fields* [6], which the *Romans* have made famous by their military exploits. *Utica* therefore, or (as *Bochart* writes, the old name עתיקא *Atica*, i. e. *the ancient city*) may in all probability be fixed at these ruins.

Gellah, *the* CASTRA CORNELIANA.

Two leagues to the E. of *Boo-shatter*, is *Gellah*, the most northern and rugged part of that remarkable promontory [7]; where *P. Cornelius Scipio* may be supposed to have fixed his winter quarters, called from thence the *Castra Cornelia* or *Corneliana* [8]. The whole is a narrow neck of land, near two furlongs in breadth; and continuing from one end of it the other, in a moderate elevation, makes, with the hill that hangs over *Boo-shatter*, a most beautiful landskip, in the figure or fashion of a theatre, with the *Me-jerdah* winding itself through the midst of it. The *Romans* very probably extended their encampments all over this promontory, which is more than a league in length; insomuch that when *Cæsar* acquaints us, that the *Castra Corneliana* were only at a mile's distance from *Utica*, he might regard that part only of their encampments which lay the nearest to the city. At present the *Me-jerdah* runs below the S. W. extremity of this neck of land, as *Gellah* makes the N. E. and at a little distance from it, on the other side, though seven miles from the sea, are the ruins, as they have been described, of *Boo-shatter*, or *Utica*, hitherto wanted in the old geography.

The port of Carthage *stopped up by the sea and the river.*

Neither has *Carthage* [9], (the next place to be taken notice of,) much better supported itself against the united encroachments of the N. E. winds, and the *Me-jerdah*; which have likewise stopped up it's ancient harbour, and made it almost as far distant from the sea, as *Utica*. However the place itself still continues to be called *El Mersa*, i. e. *the port*, lying to the N. and N. W. and forms, with the lake of *Tunis*, this *peninsula* upon which *Carthage* was built. But, upon the other side of the *peninsula*, towards the S. E. *Carthage* has been a loser to the sea; inasmuch as in that direction, for the space nearly of three furlongs in length, and half a furlong or more in breadth, it lies entirely under water. A little to the northward of these ruins, but to the S. E. of *El Mersa*, are the traces of a *Cothon*, scarce a hundred yards square. This was pro-

[6] Magni campi. *Liv.* l. xxx. 8.

[7] Vid. not. 4. p. 79.

[8] *Inde petit tumulos, exesasque undique rupes*
Antæi, *quæ regna vocat non vana vetustas.* &c.
Sed majora dedit cognomina collibus istis
Scipio ——— Luc. de bell. civil. l. iv.

[9] קרתא חדתא i. e. *civitas nova.* Exc. p. 24. D. unde Καρχηδών, κ & δ permutatis, quod *Siculum* proprium est, ut notat Salmas. in Solinum, p. 322.

bably the *new port* [1], which the *Carthaginians* built, after *Scipio* had blocked up the old: it might be the ſame likewiſe that, in the time of *Procopius*, was called the *Mandracium* [2].

The ſituation and ruins of CARTHAGE.

Carthage was built upon three hills or eminences, inferior indeed to thoſe upon which its rival city *Roſne* was erected. Upon that which overlooks the S. E. ſhore, there is the *area* of a ſpacious room, with other ſmaller ones hard by it; ſome of which have teſſellated pavements; though neither the deſign nor the materials of them are worthy of our notice. The *Byrſa* [3] probably had this ſituation.

In rowing along the ſea ſhore, the common ſewers are frequently diſcovered; which, being well built and cemented together, length of time has not been able to impair. The ciſterns are other ſtructures, which have very little ſuffered; for beſides thoſe appertaining to particular houſes, which are very numerous, there were two ſets of them belonging to the publick; the greater whereof, which was the grand *reſervoir* for the famous aqueduct, (a great part whereof is ſtill ſtanding) lay near the weſtern wall of the city, and conſiſted of more than twenty contiguous ciſterns, each of them at leaſt a hundred foot long, and thirty broad. The leſſer is in a higher ſituation, near the *Cothon* and the *Byrſa*; being contrived to collect the rain water which fell as well upon the top of it as upon ſome adjacent pavements made for that purpoſe. This *reſervoir* might be repaired with little expence; the ſmall earthen pipes, through which the rain water was conducted from the roof, wanting only to be cleanſed and opened.

Few antiquities at Carthage.

Beſides *theſe*, there are no other tokens left us of the grandeur and magnificence of this famous place. We meet with no triumphal arches, or ſumptuous pieces of architecture; here are no granate pillars, or curious entablatures; but the broken walls and ſtructures that remain are either built in the *Gothic* taſte, or according to that of the later inhabitants. The following lines very juſtly deſcribe the preſent condition of *Carthage:*

[1] *Carthaginienſes*, portu novo, (quia vetus a Scipione erat obſtructus) facto, &c. *Liv. Ep.* 51. [2] *Procop.* l. i. c. 20.

[3] *Strab. Geogr.* l. xvii. p. 1189. *Liv.* l. xxxiv. § 61. *Virg. Æn.* i. 371, &c. Docti pridem exploſerunt, & monuerunt a *Græcis* Βύρσαν dici pro בצרה *Boſra*, ad vitandam κακοφωνίαν; quia *Græcæ* linguæ genius non patitur ut S & R continuentur. Tale ἄλσος nemus pro אשלא *aſla*. *Boſra* Hebræis eſt munimentum, a verbo בצר munire. *Boch. Chan.* l. i. c. 24.

- - - - - *Quâ devictæ* Carthaginis *arces*
Procubuere, jacentque, infausto in littore, turres
Eversæ; quantum illa metus, quantum illa laborum
Urbs dedit insultans Latio *et* Laurentibus *arvis;*
Nunc passim, vix relliquias, vix nomina servans,
Obruitur, propriis non agnoscenda ruinis, *&c.*
Solatia fati
Carthago *Mariusque*[1] *tulit, pariterque jacentes*
Ignovere Deis. Lucan. de bell. civ. l. ii. 91.

Giace l'alta Carthago, *e a pena i Segni*
De l'alte sue ruine il lido serba. &c. Balz. Dissert. xxv. Chrest.

Carthage, *about fifteen miles in circuit.*

Pliny[2] seems to make the ancient *Carthage* much bigger, than when it was a *Roman* colony; which, according to *Livy*[3], was XXIII M. in circuit. *Strabo* circumscribes the *peninsula*, upon which it was built, with CCCLX furlongs, or XLV Miles; but assigns no particular Number for the extent of the city. According to an estimate made upon the spot, I judge the *Peninsula* to be about thirty miles round, and that the city may have taken up near half that space; and more, I presume, it could never lay claim to. For *Livy*[4] tells us, that *Carthage* was nearly twelve miles from *Tunes*; which is the same distance that still subsists betwixt that city, and a fragment of the old western wall of *Carthage*, which I have mentioned. And as there are several *salt pits*, which reach from the neighbourhood of this wall, as far nearly upon the S. E. shore as the *Guletta*, *Carthage* could not have extended any farther to the W. or to the S. unless these *pits* (which cannot well be supposed) were inclosed within and made part of the city. Nay, if *Polybius*[5] is to be credited, who makes the distance betwixt *Tunes* and *Carthage* XV M. the boundary this way will be thrown further to the sea; and we may thereby be induced to suspect, that the wall I have mentioned, was erected by the *Romans*, and took in a greater space of the

[1] *Marius* cursum in *Africam* direxit, inopemque vitam in Tugurio ruinarum *Carthaginiensium* toleravit: cum *Marius* aspiciens *Carthaginem*, illa intuens *Marium*, alter alteri possent esse solatio. *Vell. Paterc.*

[2] *Colonia* Carthago MAGNÆ *in vestigiis* Carthaginis. *Plin.* l. v. c. 4.

[3] *Carthago* in circuitu viginti tria millia passus patens. *Liv. Epit.* l. li.

[4] *Scipio*— in *Carthaginem* intentus occupat relictum fuga custodum Tuneta (abest ab *Carthagine* quindecim millia ferme passuum) locus quum operibus, tum suapte natura tutus, & qui & ab *Carthagine* conspici & præbere ipse prospectum quum ad urbem, tum ad circumfusum mare urbi posset. *Id.* l. xxx. 9.

[5] Ὁ δὲ Τύνης ἀπέχει μὲν τῆς Καρχηδόνος ὡς ἑκατὸν εἴκοσι σταδίους. *Polyb.* l. xiv.

peninsula,

peninſula, than might be the original *area* of the firſt city. The large moraſs, or *El Merſa*, that was formerly the port, continues to be, as it muſt always have been, the ſame limit, to the N. and N. W. whilſt, to the E. and N. E. the whole extent of the *capes Carthage* and *Commart*, to the diſtance of one, ſometimes two furlongs from the ſea ſhore, have not the leaſt traces of ruins upon them; and therefore might never have been included in the city. If we may then be permitted to calculate the extent of the ancient *Carthage* from theſe circumſtances, xv M. will be ſufficient to circumſcribe it.

The remains of the celebrated [1] aqueduct above-mentioned may be traced all along, from the greater ſet of ciſterns, as far as *Zow-wan*; and from thence to *Zung-gar*, which is at the diſtance of at leaſt I. M. from them. The whole has been a work of extraordinary labour and expence; and that portion of it in particular, which runs along the *peninſula*, was all of it elegantly built with hewn ſtone. We ſee at *Arri-ana*, a little village, two leagues to the northward of *Tunis*, a long range of its arches, all of them intire, ſeventy feet high, ſupported by columns ſixteen feet ſquare. The channel, that conveyed the water, lies upon theſe arches, being high and broad enough for a perſon of an ordinary ſize to walk in. It is vaulted above, and plaiſtered in the inſide with a ſtrong cement; which, by the ſtream running through it, is diſcoloured to the height of about three feet. This will ſufficiently ſhew the capacity of the channel; but as there are ſeveral breaches in the aqueduct, ſometimes for three or four miles together, I had no method to determine the velocity or angle of deſcent, ſo as to aſcertain the quantity of water that might be daily conveyed through it to *Carthage*. *The aqueduct.*

Both at *Zow-wan* and *Zung-gar* there was a temple erected, over the fountains which ſupplied this aqueduct with water. That at *Zung-gar* appears, by the remaining ornaments, to have been of the *Corinthian* order [2]; where there is a beautiful dome, adorned with three *niches*, placed immediately over the fountain. Theſe might probably receive ſo many ſtatues of the deities preſiding over *Temples erected over the fountains.*

[1] Γενόμενοί τε Καρχηδόνος ἄγχιστα, τόν τε ΟΧΕΤΟΝ ΑΞΙΟΘΕΑΤΟΝ ὄντα διεῖλον, ὃς ἐς ἣν πόλιν εἰσῆγε τὸ ὕδωρ. *Procop. B. Vand.* l. iv. c. 1.

[2] *Veneri, Floræ, Proſerpinæ*, fontium nymphis, *Corinthio* genere conſtitutæ ædes, aptas videbantur habere proprietates, quod his Diis propter teneritatem graciliata, & florida foliis & volutis ornata, opera facta augere videbantur juſtum decorem. *Vitr.* l. i. c. 2.

water [1]. Upon the frize of the portal we have this broken inſcription.

-----RORISII TOTIVSQVE DIVINAE DOMVS EIVS CIVITAS ZVCCHARA FECIT ET DEDICAVIT.

Leaving *Carthage*, and paſſing over the *Salinæ*, or *ſalt pits*, that were occaſionally mentioned above, we come to *Guletta*; as the *Italian* geographers have tranſlated *Ha'ck el Wed*, i. e. *The throat of the river*. This is the channel of communication, as we may call it, betwixt the lake of *Tunis* and the ſea; where there is, on each ſide, a tolerably ſtrong and well-built caſtle, intended as well for the ſecurity of this narrow paſſage, as of the harbour and anchoring ground that lies before it. This lake was formerly, as *Procopius* informs us, a deep and extenſive port [2], capacious enough to take in the largeſt navy; but, at preſent, by receiving all the common ſewers from *Tunis*, the deepeſt part of it does not exceed ſix or ſeven feet; whilſt the reſt, for the ſpace of a mile or more within the banks, is generally dry and nauſeous. However, the proſpect of this large piece of water receives no ſmall beauty from the many flocks of the *Flamant*, or *Phœnicopterus*, that ſometimes frequent it; and from the caſtle *Shickley*, which is built within it, and frequently viſited by the *Tuniſeens*, and *Chriſtian* merchants, as a place of pleaſure and recreation. Neither is this lake leſs famous for the number and largeneſs of its mullets, which are accounted the ſweeteſt upon the coaſt of *Barbary*; the roes whereof, after they are preſſed and dryed, are accountd a great delicacy, and known by the name of *Bo-targo* [3].

The lake.

Tunis, the *Tunes* of the ancients, and the capital of this kingdom, is ſituated upon a riſing ground, along the weſtern banks of

Tunis, the TUNES.

[1] Such as were *Hercules*, *Minerva*, and *Diana*. HERCULI *(fontium præſidi)* SACRUM. *Fabrett. Inſcript.* c. iv. N°. 170. Περὶ ᾧ αὐτῆς (εἰκόνα Ἱππολύτε) ἐϛὶν Ἡράκλεια καλεμένη κρήνη, τὸ ὕδωρ (ὡς οἱ Τραιζήνιοι λέγεσιν) ἀνάρρυλος Ἡρακλέες. *Pauſ. in Corinth.* MINERVAE SACRUM. *Fabrett. Inſcript.* N°. 495. DIANAE *(f. p.)* SACRUM. *Id.* N°. 496.

[2] Λιμνάζα γὰρ ἐ πλέον ἢ μ΄. ϛαδίες αὐτῆς (Καρχηδόνος) διέχουϛα εἶναί φασιν, ἣν δὴ ΣΤΑΓΝΟΝ καλέσιν, ἀφύλακτόν τε παντάπασιν ὄντα καὶ πρὸς τὸν ἅπαντα ϛόλον ἱκανῶς πεφυκότα. *Procop. Bell. Vand.* l. i. cap. 15.

[3] *Botarge* fiunt ex ovis *cephali* (Latini *mugilem* dicunt) expolitis ſc. in duabus veſicis, cruore ejuſdem piſcis et ſale adhibito. Recentioribus corrupto verbo *Botarcha* vocantur, quaſi dicas, ὠοτάριχα, i. e. ova ſalita. *G. Panciroll. de nov. repert.* tit. ult

This

this lake, in a full proſpect (as the ancients have deſcribed it[1],) of *Carthage*[2], and the iſland *Ægimurus*. *Diodorus Siculus* calls it ΛΕΥΚΟΝ ΤΥΝΗΤΑ, i. e. *White Tunis*; perhaps from the *chalky cliffs* that lie round about it, when we view it from the ſea. The many lakes and marſhes that ſurround it, might probably render the ſituation leſs healthy, were not theſe inconveniencies in a great meaſure corrected by the great quantity of maſtick, myrtle, roſemary, and other gummy and aromatic plants, which frequently communicate a ſenſible fragancy to the air, whilſt they are heating their ovens and bagnios with them. The want of water is another complaint of the *Tuniſeens*; who, from the brackiſhneſs of their well water, and the ſcarcity of ciſterns, are obliged to fetch the greateſt part of what they drink from *Bardo*, *Beer el Kelp*, and other places at a mile's diſtance. If we except this inconvenience, no place enjoys a greater plenty of the neceſſaries of life.

The *Tuniſeens* are the moſt civilized nation of *Barbary*. They have very little of that inſolent and haughty behaviour which is too common at *Algiers*. All affairs likewiſe with the *regency* are tranſacted in ſuch a friendly complaiſant manner, that it was no ſmall pleaſure to attend Mr. Conſul *Lawrence* at his audiences. This nation, which for many years has been more intent upon trade, and the improvement of its manufactures, than upon plunder and cruiſing, has always had the character and reputation of living, not like their neighbours, in open war or perpetual diſputes with the *Chriſtian* princes, but of cultivating their friendſhip, and coming readily into their alliances; but the late revolution, and change of government, that has been hinted at before, may have introduced a new ſyſtem of *policy* among them.

If we take in the *Bled el Hadrah*, and the *Bab el Swaiky*, as they call the ſuburbs, *Tunis* may be three miles or more in circuit. However it is not, for the bigneſs of it, ſo populous as *Algiers*, though they boaſt of more than 300,000 inhabitants. Neither are the houſes, in general, which are computed to be 12,000, ſo lofty and magnificent. Neither have the *Tuniſeens* the like number and variety of country ſeats; a few *villas* at the *Manoubah*, on one ſide, and at *El Merſa*, on the other, being their chief places of diverſion and retirement. The vine is likewiſe leſs cultivated here than at *Algiers*; and lately the making of wine has been abſolutely prohibited; which has increaſed the revenue that ariſes from the duty upon foreign wines, to the ſum of 50,000 dollars; it being com-

[1] In hoc lacu *Tunes* eſt inſula ad oblectationem & diſcutiendum animi mœrorem verum quoad latus ejus, quod ad *Tunes* ſpectat, eo ſordes et immunditiæ coacervantur. *Abulf.* ut ſupra. [2] Vid. not. 4. p. 82.

puted

puted that the merchants import every year upwards of 4000 hogſheads; a quantity very ſurprizing indeed, were we not at the ſame time to conſider the great number of *Turks* and *Moors* who drink here to exceſs, beyond the practice perhaps of any other nation.

Upon a large pillar, brought from the neighbourhood of *Carthage*, and placed in one of their *bagnios*, is preſerved the following inſcription.

IMP. CAESAR
DIVI NERVAE NEPOS
DIVI TRAIANA PARTHICI F.
TRAIANVS HADRIANVS
AVG. PONT. MAX. TRIB.
POT. VII. COS. III.
VIAM A CARTHAGINE
THEVESTEN STRAVIT
PER LEG. III. AVG.
P. METILIO SECVNDO.
LEG. AVG. PR. PR.

Rhades, *the* ADES.

Two leagues to the E.S.E. of *Tunis*, and at the like diſtance to the S.W. of the *Guletta*, is the town of *Rhades*, ſituated upon a riſing ground betwixt the lake of *Tunis* and the ſea. This is the ancient *Ades*, ſo much inquired after by *Cellarius* and others, where *M. Regulus* defeated the *Carthaginians*. Hard by it, on the right hand, are thoſe hills, where *Hanno*, (as *Polybius* obſerves) very unſkilfully placed his elephants to oppoſe him. As the road from *Clypea* to *Tunes*, lies through a narrow *defilè*, at a little diſtance from *Ades*, the *Carthaginian* general, (pardoning that one miſtake) could not have pitched upon a more convenient place for the ſecurity of *this paſs*; neither could the *Romans* have carried it without their uſual bravery.

The Miliana, *or* CATADA.

Not far from *Rhades*, is the river *Miliana*, the *Catada* of *Ptolemy*; and about a league farther is *Hammam Leef*, a noted *hot bath*, very much reſorted to by the citizens of *Tunis*. Behind theſe *baths*, on the right hand, is *Jibbel Reſaſs*, i. e. *The mountain of lead*, whoſe mines are plentifully ſtored with that metal: and two leagues on the left, near the bottom of the gulph, is the ſmall town of *Solyman*, ſituated upon the ſkirts of a fine plain, with a river, at two miles diſtance, on each ſide of it. This place is chiefly inhabited by *Andaluſian* moors, who being more civilized than their brethren,

Solyman.

brethren, are very courteous to *Chriſtians*, and ſtill retain the *Spaniſh* language.

Two leagues to the N.E. of *Solyman*, is *Mo-raiſah*, the *Maxula* of *Ptolemy* and other authors. Here are ſeveral broken ciſterns, beſides a ſmall harbour, as *Moraiſah*, (corruptly probably for *Merſa*) may denote. The ſea ſhore, which from the *Guletta*, all along by *Rhades*, *Hammam Leef*, and *Solyman*, is low and ſandy, begins here to be rugged and mountainous: in which ſituation, two leagues farther, we fall in the creek of *Gurbos*, or *Hammam Gurbos*, the ancient *Carpis*, where there is a *hot bath* and ſome ruins. Theſe are the *calidæ aquæ*[1] of *Livy*, which he very juſtly places over-againſt *Carthage*; and at the ſame time acquaints us that ſeveral veſſels, belonging to the fleet of *Octavius*, were there ſhipwrecked. Three leagues to the N. of *Gurbos*, we paſs by a very high and rugged head-land, the *promontorium Herculis* of the ancients: within it there is a ſmall bay, where the *Wed el Abeyde* diſcharges itſelf.

Mo-raiſah, *the* MAXULA.

Gurbos, *the* CARPIS.

Promontorium Herculis.

Wed el Abeyde.

The ſanctuary of *Seedy Doude*, ſurrounded with the ruins of the ancient *Niſua* or *Miſua*, is five leagues to the E.N.E. of the *promontory of Hercules*. It is ſo called in honour of *David*, or *Doude*, as they pronounce it, a *Mooriſh* ſaint, whoſe ſepulchre (as they ſhew it) is five yards long. But this, in reality, is nothing more than a fragment of ſome *Roman prætorium*, as we may conjecture from three teſſelated or *Moſaic* pavements, the uſual attendants of ſuch places, which lie contiguous to it. The pavements are all wrought with the greateſt ſymmetry and exactneſs: for beſides the general contraſt and deſign, which is executed with all the artful wreathings and variety of colours imaginable, the many figures of horſes, birds, fiſhes, and trees, are therein ſo judiciouſly intermixed and curiouſly inlaid, that they even appear more gay and lively than ſo many tolerable good paintings. The horſe, the *Inſignia* of the *Carthaginians*, is diſplayed in the ſame bold, free, and open poſture, as it is exhibited upon the *African* and *Sicilian* medals: the birds are the hawk and the partridge: the fiſhes are the gilt-head[2] (called here *Jeraffa*) and the mullet: and the trees are the palm and the olive. The contriver perhaps intended by this choice, to point out the

Seedy Doude, *the* NISUA *or* MISUA.

[1] Ipſe *(Cn. Octavius)* cum roſtratis, per adverſos fluctus ingenti remigum labore enixus, *Apollinis* promontorium tenuit; onerariæ pars maxima ad Aegimurum,—aliæ adverſus urbem ipſam ad *Calidas Aquas* delatæ ſunt. *Liv.* l. xxx. 24.

[2] This is the *aurata* of the ancients, which *Leo* miſtakes for the *laccia* or *leechy*, of the *Italians*, a fiſh of the tunny or mackrel kind. *Poſt menſem Octobrem genus quoddam piſcis capitur, quod apud* Afros Giarapha *appellatur; eundem piſcem eſſe crediderim, qui* Romanis Laccia *appellatur. J. Leo*, p. 214.

ſtrength, the diverſions, the fiſhery, and the plenty of dates and oyl, for which this country (continues to be, as it) was always remarkable. *Miſua* appears, by the ruins, to have been of the ſame extent with *Hippozarytus*; where likewiſe there was a capacious harbour, very convenient for ſuch veſſels to touch at, which could not, on account of contrary winds or diſtreſs of weather, reach the ports of *Carthage* or *Utica*.

Lowha reah, *the* AQUILARIA.

Two leagues to the E. N. E. of *Seedy Doude*, and a little to the ſouthward of the *promontory of Mercury*, is *Low-hareah*, the *Aquilaria* of the ancients, where *Curio* [1] landed thoſe troops, that were afterwards defeated [2] by *Sabura*. The ſituation of this ancient city has been hitherto as much enquired after and wanted as that of *Utica* and *Ades*; where, in like manner, there are ſeveral fragments of antiquities, but none of them worthy of our notice. However, from the ſea ſhore to this village, which is at half a mile's diſtance, the interjacent mountain, from the level of the ſea to the height of twenty or thirty feet above it, is, according to the diſpoſition of the *ſtrata*, very artfully hewn and carried away, where ſmall ſhafts or openings are carried up quite through the ſurface above, for the admiſſion of freſh air; whilſt large pillars, (the μεσοκεμνεῖς κίονες, as *Pollux* names them) with their reſpective arches, as the practice was [4], are left ſtanding, at their proper diſtances below, to ſupport the roof. Theſe are the quarries taken notice of by *Strabo*; from whence the buildings not only of *Carthage* and *Utica*, but of other adjacent cities, received their materials. Moreover, as this mountain is ſhaded all over with trees; as the arches here deſcribed lie open to the ſea, having a large cliff on each ſide, with the iſland *Ægimurus* placed over againſt them; as there are likewiſe ſome fountains perpetually draining from the rocks, and ſeats very convenient for the weary labourer to reſt upon: From ſuch a concurrence of circumſtances, ſo exactly correſponding to the cave which *Virgil* places ſomewhere in this gulph, we have little room to doubt of the following deſcription being literally true, notwithſtanding ſome commentators [5] may have either thought it fictitious, or applicable to another place.

[2] *Cæſ. de bell. civ.* l. ii. 21.

[3] Milites ad unum omnes interficiuntur. *Id.* 38.

[4] Fornices crebro relinquebantur a metallariis montibus ſuſtinendis. *Plin.* xxxiii. 4.

[5] L. xvii. p. 1190.

[6] Eſt τοποθεσία, i. e. fictus ſecundum poeticam licentiam locus. Ne autem videretur penitus a veritate diſcedere, *Hiſpanienſis Carthaginis* portum deſcripſit. Cæterum hunc locum in *Africa* nunquam eſſe conſtant. *Serv. in loc.* Fictus hic locus eſt, et ſublatus ab *Homero* (*Odyſſ.* xiii. 95.) aliqua ex parte ad formam *Ithacenſis* portus. *Pomp. Sab. ibid.* *Mr.* Addiſon (p. 71 of his *Travels*) *ſuppoſeth that* Virgil *might have taken the plan from the bay of* Naples.

Eſt

Eſt in ſeceſſu longo *locus; Inſula portum*
Efficit objectu laterum: quibus omnis ab alto
Frangitur, inque ſinus ſcindit ſeſe unda reductos.
Hinc atque hinc vaſtæ rupes, geminique minantur
In cœlum ſcopuli: quorum ſub vertice latè
Æquora tuta ſilent: tum ſylvis ſcena coruſcis
Deſuper, horrentique atrum nemus imminet umbra.
Fronte ſub adverſa ſcopulis pendentibus antrum:
Intus aquæ dulces; vivoque ſedilia ſaxo,
Nympharum domus, &c.

Virg. Æn. i. 163.

Cape Bon, the Promontorium Mercurii.

Cape Bon, the *Ras-addar* of the *Moors*, and the *Promontory of Mercury*, or *Hermes*, of the antients, is ſituated about a league to the northward of *Lowha-reah*. I was informed by the neighbours, that, in very fair weather, they could, from hence, diſcover the mountains of *Sicily*, which are more than twenty leagues diſtant. The two iſlands *Zembræ*, or *Zowa-moores*, as the *Tuniſeans* call them, lie under *this Promontory*; the ſmaller not far from the ſhore; the larger at four miles diſtance. The fruitful tract of land, that reaches from this cape to *Nabal* and *Hamamel*, is, from the faſhion of it, called *Dackhul*, i. e. *The Strip* or *Corner*. Five leagues from this cape, to the S. by E. thereof, is *Clybea* (the *Clupea* or *Clypea* of the *Latins*, and the ΑΣΠΙΣ of the *Grecians.)* It is built upon a ſmall promontory, the *Taphitis* of *Strabo*[1], which, being in the figure of a ſhield[2] or hemiſphere, gave occaſion to the name. There is nothing ſtanding of this ancient city: for the caſtle is a modern ſtructure; and what they now call *Clybea*, is a miſerable knot of hovels, at a mile's diſtance from the old.

The Zowamoores.

The Dackhul.

Clybea, the CLUPEA, or ΑΣΠΙΣ.

The river.

A little way from hence to the ſouthward, we croſs a large river, where *Maſiniſſa* was ſuppoſed to have been drowned in his flight from *Bocchar*; who, as *Livy* tells us, was afraid to ford it; diſcouraged no doubt by the depth and rapidity of the ſtream. In the month of *January*, when no rain had fallen into it for ſeveral days, we found the channel very deep and of an uneven bottom, full of large ſtones, which we had much difficulty to paſs over with ſafety. On the other ſide lie thoſe *open fields*, where *Bocchar* is ſaid to have killed forty-ſix of the fifty perſons, who attended *Maſiniſſa*[3].

[1] *Exc.* p. 7. F.

[2] *In* Clypei *ſpeciem curvatis turribus* Aſpis. *Sil.* Ital. l. iii. 243.

[3] *Maſiniſſa* cum quinquaginta haud amplius equitibus per anfractus montis ignotos ſequentibus ſe eripuit. Tenuit tamen veſtigia *Bocchar*; adeptuſque eum *patentibus prope Clupeam urbem campis*, ita circumvenit, ut, præter quatuor equites, omnes ad unum interfecerit——*amnis ingens* fugientes accepit——is finis *Bocchari* ſequendi fuit, *nec ingredi flumen auſo*, nec, &c. *Liv.* l. xxix. 32.

Gurba, *the* CUROBIS.

Gurba, the ancient *Curobis* or *Curubis*, is ſeven leagues from *Clybea*. It was formerly a conſiderable place, though at preſent the ruins of a large aqueduct, with the ciſterns that received the water, are the only antiquities. A little brook runs by it to the W. where we have the remains of a ſtone bridge that was built over it; and, at a neighbouring houſe there is an altar that might have belonged to it, with the following inſcription:

PONTI
C. HELVIO C. FARN. HONORA
TO AEDILI II VIR - - - -
- - - CVRAT. ALIMENT. DISTRIB.
OB INSIGNES LIBERALITATES
IN REMPVB. ET IN CIVES
AMOREM VIRO BONO
COL. FVLVIA CVRVBIS. DD. PP.

Nabal, *the* NEAPOLIS.

Leaving *Gurba* we come to *Nabal*, a very thriving and induſtrious town, much celebrated for its potteries. It is built in a low ſituation, at a mile's diſtance from the ſea ſhore; and about a furlong to the weſtward is the antient *Neapolis*, which appears to have been a large city, even excluſive of that part of it which is ſwallowed up by the ſea. Here are a great number of inſcriptions upon ſtones of ſix feet in length and three in breadth; but they are either ſo unfortunately defaced, or filled up with rubbiſh and mortar, that it required more time than my guides would allow me, to copy them. On the banks of the little brook that runs through the old city, we have a block of white marble, with a wolf, in *baſſo relievo*, curiouſly repreſented upon it.

Hamam-et, *or the city of* wild pigeons.

Travelling, for the ſpace of two leagues, through a rugged road, delightfully ſhaded with olive trees, we arrive at *Hamam-et*, which *Leo* informs us (p. 221) was built about his time; though the flouriſhing condition of it is of no longer date than the latter end of the laſt century. The pillars, the blocks of marble, the following inſcriptions, and ſome few other tokens of antiquity that we meet with at *Hamamet*, were brought from the neighbouring ruins of

Caſſir Aſeite.

Caſſir Aſeite, the *Civitas Siagitana* of [4] the ancients. The name too, (which, from ſome ſmall affinity in ſound, might induce *Buno*, the *Sanſons*, and others to take it for the ancient *Adrumetum*) is derived

[4] Et pro ſenatu populoque Siagitano *Celer Imilconis Guiliſſæ F. Suffes.*

from the *Hamam*, or *wild pigeons*, that copiouſly breed in the adjacent cliffs.

I.

VICTORIAE
ARMENIACAE PARTHICAE
MEDICAE AVGVSTORVM A.
SACRVM CIVITAS SIAGI
TANA DD. PP.

II.

IMP. CAES. DIVI SEPTIMI SEVERI
PARTH. ARABICI ADIABENICI
MAX. BRIT. MAX. FIL. DIVI
M. ANTONINI PII GERMANICI
SARMAT. NEPOT. DIVI ANTONINI
PRONEPOTI DIVI AELI HADRIANI
ABNEPOTI DIVI TRAIANI PAR. ET
DIVI NERVAE ADNEPOTI
M. AVRELIO ANTONINO PIO FEL.
PAR. MAX. BRIT. MAX. GERM.
MAX. IMP. III. COS. IIII. P.P. - -
- - CIVITAS SIAGITANORVM DD. PP.

Bochart. Chan. l. i. c. 24. has preſerved another inſcription relating to this place.

A little beyond *Caſſir Aſeite*, we come into a large plain, that reaches as far as *Herkla*; which is as remarkable for the many flocks of the *Damoiſelle*, or *Otis*, that frequent it, as the lake of *Tunis* is for thoſe of the *Phœnicopterus*. Within this plain, two leagues from *Hamamet*, is the *Me-narah*, a large *Mauſoleum*, near twenty yards in diameter, built in a cylindrical form, with a vault underneath it. Several ſmall altars (ſuppoſed by the *Moors* to have been formerly ſo many *Menara*, i. e. *lamps* for the direction of the mariner) are placed upon the *cornice*; and inſcribed with the names of

The plains of Hamam-et.

The Me-narah.

L. AEMILIO AFRICANO AVVNCVLO.
C. SVELLIO PONTANO PATRVELI.
VITELLIO QVARTO PATRI.

Near the *Menarah* are the ruins of a ſmall port or creek, formerly belonging to *Faradeeſe*, an old *Roman* city, ſituated, at a few miles diſtance, upon the N. W. ſide of this plain. I was informed, that a century ago, the *Faradeſians* were the greateſt cruiſers and the moſt

Faradeeſe.

experienced mariners of this country; but that the greater increaſe of trade, and the more conveniencies for navigation at *Hamam-et*, had, of late years, drawn thither all the inhabitants. This may

The VENERIA, *or* APHRODISIUM.

be the *Veneria* of *Solinus*; or rather, from an affinity in name, the ancient *Aphrodiſium*, placed by *Ptolemy* in the ſame latitude, but more to the W. than *Adrumetum*.

Selloome.

Near the middle of the plain, our proſpect is a little interrupted by an hemiſpherical hillock, called *Selloome*, the ſeat formerly of ſome caſtle or village; probably one of thoſe mentioned by *Hirtius*[5], which *Cæſar* paſſed by in ſailing towards *Adrumetum*. Two leagues further, near the ſhore, there is a large piece of marſhy ground, with an adjacent lake, which is perpetually draining through it into the ſea. A bridge,

The maritime boundary of the Zeugitania.

or ſometimes a cauſeway only, were formerly built over the whole length of this moraſs, to the no ſmall conveniency and ſafety likewiſe of thoſe who were to paſs over it in their way to *Herkla* and *Suſa*. This moraſs, with the rivulet oozing from it, I take to be the boundary to the ſeaward betwixt the *Zeugitania* and *Bizacium*.

CHAP. III.

Of the moſt remarkable inland places of the Zeugitania, *or* ſummer-circuit.

Jibbel Iſkell, *or* CERNA.

IF we return then to the weſtward of the *ſummer circuit*; a little to the S. W. of the *great lake* of *Biſerta*, is *Jibbel Iſkell*, the *Mons Cerna* of the ancients. *Matter*, the *Oppidum Materenſe*, lies below it; a ſmall village ſituated in a fruitful plain. The rivulet that runs by it, empties itſelf into that part of the *great lake* which was the *Siſera Palus*, as the other part of it nearer *Bizerta* was the *Hipponites* of the old geography.

Matter, *the* Oppidum MATERENSE.

SISERA *et* HIPPONITES Palus.

Not far from the frontiers of the *Algerines*, about ſeven leagues from *Tabarca*, and ten to the S. W. of *Matter*, is the city *Beja* or *Bay-jah*, as it is pronounced at preſent, which by the name and ſituation ſhould be the *Vacca*[1] of *Salluſt*, the *Oppidum Vagenſe* of

Bay-jah, *the* OPPIDUM VAGENSE,

[5] *Cæſar Clupeam* claſſe prætervehitur; inde *Neapolin*, complura præterea caſtella & oppida non longe a mari relinquit. *Hirt. Bell. Afr.* § 2.

[1] Erat haud longe ab eo itinere quo Metellus pergebat, oppidum *Numidarum*, nomine *Vacca*, forum rerum venalium totius regni maxime celebratum, ubi et incolere et mercari conſueverunt Italici generis multi mortales. *Sall. Bell. Jug.* § 50.

Pliny,

Pliny, the ΒΑΓΑ [2] of *Plutarch*, and the *Vaccenſium Ordo Splendidiſſimus*, as the title runs in the following imperfect inſcription. *Cellarius* [3] places it very juſtly towards the N. E. of *Cirta*, but quotes no authority. However, as it may be preſumed, from *Salluſt's* [4] account, to lie to the right hand, (as *Keff* or *Sicca Veneria* did to the left) in travelling from *Carthage* or *Utica*, to *Numidia*, ſuch a ſituation will be highly agreeable to this deſcription of it. Moreover after *Vacca* revolted, *Metellus* [5] is ſaid to have departed from his winter quarters in the evening, and to have arrived before it, about the third hour of the following day: which journey, conſidering the expedition wherewith it was performed, will very well agree with the diſtance of fifty miles, that lies betwixt *Bayjah* and *Utica*, where *Metellus* was then ſtationed. I am not acquainted with any other circumſtance in ancient hiſtory, that further informs us concerning the ſituation of *Vacca*; for *Ptolemy's Vaga*, as it lies among the *Cirteſii*, cannot be the place; and the reaſon perhaps why it is not taken notice of in the *Itinerary*, or in *Peutinger's tables*, may be accounted for from it's lying quite out of the *great road* that was carried from *Carthage* either to *Numidia* or *Bizacium*.

Bay-jah keeps up the character, that *Salluſt* gives his *Vacca*, of being a town of great trade, the chief mart, indeed, of the whole kingdom, particularly for corn, from which all other commodities are eſtim ated: and inthe plains of *Bus-dera*, which lie below it along the banks of the *Me-jerdah*, there is kept every ſummer a public fair, frequented by the moſt diſtant *Arabian* tribes, who reſort hither, with their flocks, their manufactories, and families. The preſent city is built upon the declivity of a hill, with the conveniency of being well watered; and upon the higheſt part of it is the citadel, which is of no great ſtrength. Upon the walls, which are raiſed out of the ancient materials, we have the following inſcription, that has been referred to above. *A place of great trade.*

M. IVLIO M. TILIRB - - - - - - - -
DECVRIONI - - - - - - - - - - - - - -
FAC. ANN. XXII. PRAEFECTVS
VR. DEC. II VIR - - - QQ - - - - -
V. C̄VM ORDO SPLENDIDISSIMVS
OB MERITA SVA STATVAM
P. P. FIERI DECREVIT.

[2] Φευγῶν ἡ Βάγαν, πόλιν μεγάλην, &c. *Plut. in Mario*, p. 409.
[3] *Vaga* a *Cirta* in ortum æſtivum diſtat. *Cell.* l. iv. c. 5. p. 114.
[4] *Sall. Bell. Jug.* 60.
[5] *Metellus*, poſtquam de rebus *Vaccæ* actis comperit—legionem, cum qua hiemabat, et quam plurimos poteſt *Numidas* equites pariter cum occaſu ſolis expeditos educit; et poſtera die, circiter horam tertiam, pervenit in quandam planitiem—docet oppidum *Vaccam* non amplius mille paſſuum abeſſe. *Id.* 71.

In

Tub-urbo, *the* TUBURBUM Minus. In the ſame parallel nearly with *Bai-jah*, upon the banks of the *Me-jerdah*, is *Tuburbo*, a ſmall town inhabited at preſent by *Andaluſian Moors*. This ſhould be the *Tuburbum Minus* of the ancients: as the *Majus* (where, according to *Peutinger's table*, there was a remarkable temple or edifice,) lies at too great a diſtance towards the S. to be taken for it. *Mahamet*, a late *bey* of this kingdom, planted a great number and variety of fruit trees in the neighbourhood of it, which were ranged in ſo particular a method, that each *ſpecies* was confined to one grove, and thereby removed from the influence of another. Thus the orange trees were all placed by themſelves, without the admiſſion of the lime or citron; and where the pear or apple was gathered, there was no encouragement to look for the peach or apricot. In the adjacent valley, where the *Me-jerdah* conveys its ſtream, the ſame curious and generous prince erected, out of the ruins of a neighbouring amphitheatre, a large maſſy bridge or damm, with proper ſluices and flood-gates, to raiſe the river to a convenient height, for watering and refreſhing theſe plantations. But this, which was too laudable an invention to ſubſiſt long in *Barbary*, is now intirely broken down and deſtroyed.

Tuccaber, *or* TUCCABORI. Below *Tuburbo*, on the ſame ſide of the *Me-jerdah*, is the little village *Tuccaber*, the ſame perhaps that is taken notice of by *St. Cyprian (in Concil.)* and *St. Auſtin (ad Donat.)* under the name of *Tuccabori* or *Thucceabori*. *Simler* [6] therefore muſt be miſtaken in taking it for the *Tucca Terebinthina*, which lay LX M. only from *Sufetula*; whereas *Tuccaber* lies nearly at twice that diſtance.

Tuberſoke, *or* THIBURSICUMBURE. On the other ſide of the *Me-jerdah*, ten leagues to the S. of *Tuccaber*, is *Tuberſoke*, a ſmall city walled round, and ſituated upon the declivity of an eminence. In the centre of it there is a very clear and plentiful fountain, with the ruins of a ſmall temple or *dome* that was formerly built over it. It lies nearly in the ſame parallel with *Tubernoke*, though at above L M. diſtance, and cannot therefore be one and the ſame city, as ſome authors quoted by *Cellarius* (l. xiv. c. 4.) have imagined. Upon the walls, which are made with the old materials, we have the two following inſcriptions: by the *firſt* of which we find this city was called *Thiburſicumbure*, the ſame probably with the *Tuburſicuburenſis* of the *Notitia*. Now as this was a *ſee* of the *Provincia Proconſularis*, we ſhall be at a loſs for the *Thuburſicca* of *Ptolemy*, which the ſame *Notitia* places in *Numidia*, a quite different province. The *ſecond* inſtructs us, that the title of *Chriſtianiſſimus*, which a few centuries ago was given by the biſhop of *Rome* to the *French* kings, was a compliment paid, many ages before, to *Juſtin* and *Sofia*.

[6] *Annot. in Itiner. Cellar.* l. iv. c. 5. 116.

VRBI

I.

VRBI ROMAE AETERNAE AVG.
RESP. MVNICIPI SEVERIANI ANTO
NINIANI LIBERI THIBVRSICENSIVM
BVRE.

II.

SALVIS DOMINIS NOSTRIS CHRISTIANISSIMIS ET
INVICTISSIMIS IMPERATORIBVS IVSTINO ET SOFIAE
AVGVSTIS HANC MVNITIONEM THOMAS [7] EXCELLENTISSIMVS
PRAEFECTVS FELICITER AEDIFICAVIT.

Lorbus, called ſometimes *Lerba*, the ancient *Laribus Colonia*, lies in the ſame parallel with *Tuberſoke*, at three leagues diſtance to the W. It has a fine ſituation upon an eminence, from whence *Leo* and *Marmol* very injudiciouſly deduce the river of *Tabarca*. Lorbus, *or* LARIBUSCol.

Below *Lorbus* and *Tuberſoke*, at near equal diſtances from them both, is *Muſti*, called at preſent *Seedy Abdel Abbus*, where we have the remains of a beautiful *triumphal arch*; and upon a ſtone, that might formerly belong to it, there is the following inſcription. Seedy Abdelabbus, *or* MUSTI.

INVICTISSIMO FELICISSIMOQVE IMPERATORI
AVGVSTO CAESARI ORBIS PACATORI
- - - - - MVSTICENSIVM DD.

Vibius Sequeſter [8] has been miſinformed, in placing *Muſti* near the river *Bagrada*; which is in the neareſt part of it, four leagues from it to the N.E. The author of the *Itinerary* makes this noted city to lie XXXIV *Roman* miles (*Peutinger's tables* only XXXII) from *Sicca Veneria*; XCII from *Sufetula*; LXXXVI from *Carthage*; and CXCIX (by *Tipaſa*) to *Cirta*: all which diſtances, conſidering the roads are frequently indirect, and ſeveral interjacent places are to be frequently touched at, will very well correſpond with the ſituation of *Seedy Abdel-abbus*.

Keff, the *Sicca* or *Sicca Veneria* [9] of the ancients, lies about XV M. from *Lorbuſs*, and LXXII M. from *Tunis*. It is a frontier town, and the third for riches and ſtrength in the whole kingdom. Keff, *the* SICCA *or* SICCA VENERIA.

7 Et *Thomas Lityæ* nutantis dextera terræ. *Coripp. Afr. de laud. Juſt. Min.* l. i.

8 *Bagrada Africæ* juxta oppidum *Muſti*, &c.

9 Summi viri, *Jo. Seldenus*, *De Diis Syris* Syntagma ii. c. 7. & *Ger. Jo. Voſſius*, *Theol. Gentil.* l. ii. c. 22. nomen *Siccæ Veneriæ* erudite deducunt ex *Aſſyriorum* numine vel religione *Succot Benot*, cujus 2 Reg. xvii. fit mentio, quaſi tabernacula

In

In the late civil wars, the greateſt part of the citadel was blown up; which has ſince been rebuilt with greater ſtrength and beauty. In levelling an adjacent mount, to find materials for this building, they found an entire ſtatue of *Venus*; which was no ſooner found than it was broken to pieces by theſe *Iconoclaſtics*. This ſtatue may not a little authorize and illuſtrate the appellation of *Veneria* that was attributed to *Sicca*. There was an *equeſtrian* ſtatue dugup at the ſame time, dedicated to MARCVS ANTONIVS RVFVS, which ſuffered the ſame fate. The ſituation of *Keff*, as the name itſelf imports, is upon the declivity of a hill, with a plentiful ſource of water near the centre of it. Beſides what has been already mentioned, the two following inſcriptions are the only ſurviving antiquities of this noted place.

I.

VICTORI
CENTVRIONI
LEGIONARIO
EX EQVITE
ROMANO
OB MVNIFI
CENTIAM ORDO
SICCENSIVM
------CIVI
ET CONDECVRIONI
DD. PP.

II.

HERCVLI SACRVM
M. TITACIVS PROCVLVS * PROCV
RATOR AVGVSTI SVA
PECVNIA FECIT.

Tuber-noke, *the* OPPIDUM TUBURNICENSE.

Tuber-noke, the *Oppidum Tuburnicenſe* of *Pliny*, is ſituated in the *Dakhul*, at about ſeven leagues to the S. of *Tunis*, and near the half way betwixt *Solyman* and *Caſſir Aſeite*. It is built in the form of a *creſcent*, between two ridges of a very verdant mountain, (a part probably of the *Mons*

filiarum ſive mulierum dicantur, ſeu cultus *Veneris Aſſyriæ*, quam *Herodotus*, l. i. cap. 99. & *Strabo*, l. xvi. deſcribunt. *Cellar. Geogr. Antiq.* l. iv. c. 5. p. 117. *Siccæ* enim Fanum eſt *Veneris*, in quod ſe matronæ conferebant; atque inde procedentes ad quæſtum, dotes corporis injuria contrahebant, honeſta nimirum tam inhoneſto vinculo conjugia junctura. *Val. Max.* l. ii. c. 6. § 15.

Balbus

Balbus of *Livy*[1], which diverſifies itſelf, in this neighbourhood, in the like variety of windings and narrow *defiles* as are mentioned by that author. A large pair of ſtag's horns are well delineated in *baſſo relievo*, upon the gate of a large edifice; which is indeed the only ſurviving antiquity. *Tuber-noke* anſwers well enough in name to the *Tubernicenſis* of the *Notitia*; yet it will be difficult to account for the placing of it, no leſs than of *Tubercine*, above-mentioned, among the *epiſcopal ſees* of *Numidia:* the neareſt of which lies at ſo conſiderable a diſtance to the weſtward, that we may well ſuſpect there is ſome great miſtake in the *Notitia*[2], with regard to both thoſe places.

Zow-an or *Zag-wan*, in the ſame meridian with, and at twelve leagues diſtance from *Tunis*, is a ſmall flouriſhing town, built upon the N. E. extremity of a conſpicuous mountain of the ſame name, the *Mons-Ziguenſis* probably of *Victor*[3]. It is in great repute for the dying of ſcarlet caps, and the bleaching of linen; great quantities of both being daily brought thither for that purpoſe from *Tunis*, *Suſa*, and other places. The ſtream which is employed at preſent for this uſe, was formerly, together with the river of *Zungler*, conveyed to *Carthage*; and over the fountains of it there was, in like manner as at *Zungar* (which has been already deſcribed) a temple erected; the ruins of which continue likewiſe to this day. Upon an ancient gate which regards the S. E. there is a ram's head, armed, in *baſſo relievo*, with AVXILIO, in large letters, below it. This may perhaps inſtruct us, that *Zowan*, or whatever was its former name, was under the immediate influence and protection of *Jupiter Ammon*[4]. Zow-waan.

If we could be aſſured, that the leaſt traces of *Zeugis*, mentioned above, or *Zeugitana*, were preſerved in the preſent name of this city or mountain, there would be no ſmall reaſon to imagine, that the name of this province was denominated from it. *Solinus* ſeems to advance ſomething in favour of this ſuppoſition; by acquainting us, that *Africa* (particularly ſo called, as we are perhaps to underſtand him) com- Zeugitana *probably ſo called from this mountain.*

[1] *Maſiniſſa* cum paucis equitibus ex acie in montem (*Balbum* incolæ vocant) perfugit. *Liv.* l. xxix. § 31. *Bocchar* digreſſum jugis *Maſiniſſam* perſecutus in valle arcta, faucibus utrimque obſeſſis, incluſit. *Id.* § 32.

[2] Vid. *Tertul.* lib. 6. ad *Scapulam*. *Baron. Annal. in ann.* c. 195.

[3] Creſconius Preſbyter Myzentinæ civitatis, in ſpelunca Ziguenſis montis repertus eſt, putreſcente jam ſolutus cadavere. *Vict. Utic. de Perſecut. Vand.* l. iii.

[4] The image of *Jupiter Ammon* is called Κριοπρόσωπον by *Herodotus*, l. ii. § 42. From whence the Poet,

Tortis cornibus Ammon. *Lucan.* l. ix. p. 519.

In one of the coins of *Gallienus*, there is a ram with this legend, IOVI CONSERVATORI; in one of *Saloninus*, AMMONI CONSERVATORI.

menced *a pede*[5] *Zeugitano*, i.e. *from the foot* (as I would interpret it) *of the mountain Zow-wan*, the *Mons Ziguensis* probably of *Victor*; or, in other words, that *Africa* was that space of ground which lay to the northward of the parallel of this mountain. It is certain, that we have from this eminence a most delightful and extensive prospect; which might therefore be the very place from whence *Agathocles*[6] was entertained with the view both of the country of the *Adrumetines* and *Carthaginians*. The *Zygantes* of *Herodotus*, who were remarkable for their honey, seem to have had this situation.

The following inscriptions relate to places of lesser note in the old geography; at each of which there are several rudiments of old cisterns, pillars, capitals, fragments of large walls, porticoes, &c. which it would have been too tedious to enumerate on every occasion.

Upon a ruined triumphal arch at *Bazilbab*, on the banks of the *Migardah*, xxx M. to the W. of *Tunis*.

SALVIS ET PROPITIIS DDD. NNN. GRATIA
NO VALENTINIANO THEODOSIO INVICTISSIMIS PRINCI
PIBVS DE PACE EX MORE CONDIT. DECRET

- -

At *Teshure*, VI M. from *Bazilbab*.

I.

D. N. IMP. VALERIO LVCINIA
NO LICINIO AVG. MAX.
SARMATICO MAX. GERMA
NICO MAX. TRIBVNITIA POTES
TATE X. COS. V. IMP. X. PATRI PATRIAE
PROCONS. COL. BISICA LVCANA DEVOTA
NVMINIBVS MAIESTATIQVE EIVS.

II.

FORTISSIMO IMP.
ET PACATORI ORBIS
M. CLAVDIO
TACITO.
PIO FELICI AVG.

[5] Πόδας μὲν γὰρ λέγεσθαι ὑπορείας, κορυφὰς δὲ τὰ ἄκρα τῶν ὀρῶν. *Strab.* l. x. p. 326.

[6] Αγαθοκλῆς προσῆλθεν ἐπί τινα τόπον ὀρεινὸν, ὅθεν ὁρᾶσθαι δυνατὸν ἦν αὐτὸν ὑπὸ τῆς τῶν Αδρυμητινῶν καὶ τῶν Χαρχηδονίων τὸν Τύνητα πολιορκούντων χώρας. *Diod. Sic.* lib. xx. p. 741.

At

At *Tugga*, betwixt *Teſture* and *Tuberſoke*.

C. MEMMIO FELICI
FLAMINI AVG. PERP.
VTRIVSQVE PARTIS
CIVITATIS THIGNICEN
SIS. C. MEMMIVS
FORTVNATVS FLAM.
AVG. PERP. VTRI
VSQVE PARTIS CIVI
TATIS THIGNICENCIS
PROPTER EXIMIAM
PIETATEM ET AFFECTI
ONEM FRATERNAM QVAM
- - - LIBER EXHIBET

At *Al Aleah*, half way betwixt *Bizerta* and *Port Farina*.

- - - - - - - REIPVBLICAE SPLENDI
DISSIMAE COTVZAE SACRAE
VALERIVS IANVARIVS. - - - - - - -

At *Slougeah*, betwixt *Teſtoure* and *Bazilbab*, on the banks of the *Mejerdah*.

IMP. CAES. DIVI M. - - - -
ANTONINI PII GE - - - -
NEP. DIVI HADRIANI
PRONEP. DIVI
TRAIANI PART. AB
- - - - DIVI NERVAE
- - - SEPTIMIO SEVERO
PERTINACI AVG. ARAB.
N. P. P. PONT. MAX. TRIB.
POTEST. IMP. VII. COS. II.
- - - - - - HIDIBELENS.

At *Dugga*, near *Tuberſoke*.

I.

IMP. CAES. DIVI ANTONINI - - - -
MARC. AVRELIO SEVERO ALEXANDRO
PONTIFICI MAX. TRIBVNITIA POT.
ET CASTR. ET SENATVS ET PA
- - VM LIBERVM * THVGGA.

* MVNICIPIVM LIBERVM THVGGA apud *Sponii* Miſcell. φρέαρ τέκνα, *Procop.* l. vi. c. 5. *De Ædific.*

II.

CLAVDIO CAESARI AVG - - - -
MAXIMO TRIBVNITIA POT. - -
R. CRASSVS AEDIL. ORNAM - -
TI VIR AVGVR II VIR QVINQVE
C. FAR. PERPETVVS SACERIVS
PAGI THVGGENSIS NOM - - - -
ET PERPETVI. - - - - - -

III.

IMP. CAES. DIVI
NERVAE NEPOTI
TRAIANI DACICI
PARTHICI FIL.
TRAIANO HADRIANO AVG.
PONT. MAX. TRIBVN.
POTEST. COS. II. PP.
CIVITAS THVGGA DD. PP.

IV.

TIRINVS FORTV
NATVS VIR. ARMIS
INGENIO ET ANIMO
MAXIMO QVI CVM
- - - - NIS ET GRAECIS
- - - - TIMIS H. I. T. P.
- - - - - - - - - - - - - -

VIXITQVE IAETOS DVOS
ZOZIMOS IOVIS P. V. XXXIV.

At *Maſhera*, near *Dugga*.

SATVRNO AVG. SACRVM
CIVITAS II TVGGENSIS
DEDICAVIT DECRETO
DECVRIONVM.

At *Beiſſons*, betwixt *Tuberſoke* and *Dugga*.

I.

MAGNIS ET INVICTIS DDDD. NNNN. DIOCLETIANO
ET MAXIMIANO PERPETVIS AVGG. ET
CONSTANTIO ET MAXIMIANO NOBB. CAESARIBVS
RESPVBLICA MVNICIPII AGBIENSIVM DEDICA - - - - -
M. IVL. - - PROCOS - - MAIESTATIQVE EORVM DIC. - -

II.

PRO SALVTE IMP. M. ANTONINI. AVG. PII
LIBERORVMQVE EIVS
CINTIVS C. F. R. N. VICTORVM AD TVENDAM
REMPVBLICAM CONSENSV DECVRIO
NVM OMNIVM IAM PRIDEM PATRONVS
FACTVS ET TVTOR CVM - - RERVM VETVS
TATE CONSVM - - - - - - - - - - A SOLO
- -
MVNICIPI CIVILIS AGBIENSIVM ET
VNIVERSIS CVRIIS DD. PP.

At

85666

At *Bouſha*, XVIII M. to the S. W. of *Tunis*.

CATIO ALCIMO FELICIANO PV. - - - - - - - - - - -
VICE PRAEF. PRET. PRAEF. ANNO - - - - - - - - -
NAE VICE PRAEF. VIGILVM MAG. - - - - - - - - - -
SVMMAE PRIVATAE MAGIST. - - - - - - - - - - -
VM RATIONVM CVRATORI OPER - - - - - - - - - -
TRI. PROC. HEREDITATVM - - - - - - - - - - - -
SACRAE MONETAE PER - - - - - - - - - - - - - -
PROV. NARBONENS. PROC. PRIV. PER SALARIAM - - -
TIBVRTINAM VALERIAM TVSCIAM PROC. PER - - - -
FLAMINIAM VMBRIAM PICENVM ITEM VICE - - - -
PROC. QVADRIG. GALLIARVM PROC. ALIMENT. PER - -
TRANSPADVM HISTRIAM TITVRNIAM - - - - - - - -
FISCI PROVINCIAR. XI OB EXIMIVM AMOREM IN
PATRIAM SPLENDIDISSIMVS ORDO TVRCET. PATRONO DD.

At *Meſherga*, IX M. to the E. of *Bouſha*.

I.

- - - - - - - - -
PII IMP. V. COS. I. -
PROCOS. MVNICIPI
VM. GIVF DEVOTVM
NVMINI MAIESTATI
QVE EIVS DD. PP.

II.

LVCINIAE SATVR
NINAE AVRELI
DIONISI PATRO
NI CONIVGI
MVNICIPES
MVNICIPI AVRE
LI ALEXANDRIA
NI AVGVSTI
MAGNI GIVFITANI

III.

III.

AGENTI

IV.

APOLLINI AVG. SACR.
DEVNDANIVS PAPRIMIANVS FVNDANI
FELICIS AEDELICI FIL. FVNDANI PRIMI FL. P. NEPOTIS
AEDILIS OB HONOREM AEDILITATESQVE MET. ORDO
SVVS SVFFRAGIO DECREVIT HANC STATVAM IMITA
TVS PATRIS EXEMPLVM H-S. VIII MILLIBVS N SVA LI
BERALITATE NVMERATA PRIVS A SE REIPVBLICAE
SVMMA HONORARIA POSVIT EANDEMQVE DEDICA
VIT ET OB DEDICATIONEM SIMVL CVM MANNIO MEMI
ANO COLLEGA SVO LVDOS SCAENICOS ET GIMNASI
VM POPVLO AEPVLAS DECVRIONIBVS DEDIT. DDD.

V.

D. M. S.
PALLONIVS FELIX PIVS
VIXIT AN. XLI. D. IIII.
AMORE DVCTVS
PELAGI MERCIB.
INSISTEBAM
SVCCIDIS AETER
NOQVE SILENTIO
MAVRIS SVM.

VI.

PESCENNIA QVOD VVLT DEVS
H. M. F. BONIS NATALIBVS
NATA MATRONALITER
NVPTA VXOR CASTA
MATER PIA GENVIT FILIOS
III. ET FILIAS II. VIXIT
ANNIS XXX. VICTORINA
VIXIT ANNIS VII.
SVNNIVS VIXIT ANNIS
III. MARCVS VIXIT
ANNIS II. MARCEL
LVS VIXIT ANNO I.
FORTVNATA VIXIT ANNIS
XIII. M. VIII. MARCELLVS
PROCOS - - CIV.
SED ET FILIIS ET
FILIABVS NOSTRIS ME VI
VO MEMORIAM FECI
OMNIBVS ESSE PEREMNEM

At *Manſonſe*, near *Youſeph*.

D. M. S.
- - - VSVRVS PONICINNVS
- - - - - - - - - - - - - -
VERECVNDIA INCOM
PARABILIS - - - - - - -
- - - ET INGENIO CLARVS
OMNI SIMPLICITATE
IVCVNDVS.

CHAP.

CHAP. IV.

Of the moſt remarkable places upon the ſea-coaſt of the ancient Bizacium, *or* Winter-circuit.

THE many parts which I have ſeen of the ancient *Bizacium*, or *Winter-circuit*, fall vaſtly ſhort in fertility of the character which has been attributed to them by the ancients. For ſuch as are adjacent to the ſea-coaſt, are generally of a dry ſandy nature, with no great depth of ſoil in the very beſt portion of them. This is called the *Sahul*, and is planted, for the moſt part, with olive-trees, which flouriſh here in the greateſt perfection. Neither is the inland-country in a much better condition. For, if we except the plains which are watered by the rivers *Defailah*, *Derb*, and *Hat-taab*, we have mountainous and woody tracts only, all along from *Zun-ghar* by *Uſe-let*, *Truzza*, *Spaitla*, *Caſareen*, and ſo forward, (in turning to the N. W. by the ſanctuary of *Seedy Boogannin*) as far as *Hydrah*, and the frontiers of the *Algerines*. The country round about *Kairwan* is low and marſhy, with lakes and *ſhibkahs* diſperſed all over it; eſpecially in the winter-ſeaſon. Near *Gilma*, *Jemme*, and ſo on to the river *Accroude*, there is an interchange indeed of hills and valleys, but which differ very little in the quality of their ſoil from that of the ſea-coaſt. Beyond the mountains of *Caſareen*, till we arrive at *Ferre-anah* and the ſkirts of the *Sahara*, we travel a great many miles over a barren plain, with a ridge of eminences, at ſome diſtance on each ſide of us. The country continues in the ſame loneſome and barren condition from thence to *Capſa*, and ſo forward to the *Jereed*; our proſpect on each hand being all the way bounded with high mountains: the S. E. ridge whereof ſtretches towards *Jibbel Hadeffa* and the *lake of marks*; the other, which may be taken for the continuation of mount *Atlas*, runs in a S. W. direction, by *Sbekkah*, as far as the eye can conduct us. Such is the general plan and map of this province. *The general deſcription of the winter circuit.*

Among the more remarkable places, where the ancient geography is principally concerned, we may begin with the deſcription of *Herkla*. *Herkla*, the *Heraclea* of the lower empire, the *Juſtiniana* of the middle, and the *Adrumetum*[1] of the earlier ages. It was built, as *Clypea* was, on an hemiſpherical promontory, two leagues to the S. E. of the *Moraſs*, the boundary, as I ſuppoſe, betwixt the *Zeugitana* and this province. It appears to have been little more than a Herkla, *the* ADRUMETUM.

[1] Ἀδρύμηλον, *Appian.* Ἀδρύμηλα, *Polyb.* Ἀδρύμιτος, *Ptolem.*

mile in circuit: and, if we may judge of it's former grandeur by the remaining ruins, we ſhould rather take it for a place of importance than to have been of any great beauty or extent. That part of the promontory, which ſtretch'd to the northward and form'd the port, ſeems to have been wall'd in quite down to the ſea-ſhore; but the reſt of it, to the diſtance of a furlong from thence, does not diſcover the leaſt traces of ruins. *Cæſar* then might have all imaginable conveniency to obſerve the ſtrength and ſituation of this city [2]; eſpecially as the inhabitants declined all hoſtilities at that time.

The *Cothon* was to the W. and S. W. of this promontory; which, as *Cæſar* in his purſuit of *Varus* [3] was not able to double, he was obliged to lay at anchor before *it*; *i. e.* (as I conjecture) to the eaſtward of it. Now, as it may be preſumed, that *Cæſar* directed his courſe from *Leptis*, or *Lempta*; no other than a ſoutherly or weſterly wind could have brought him hither: It is certain that an eaſterly wind would, from the very ſituation of this port and promontory, have eaſily conducted him within them both. *Hamam-et*, therefore, as ſome pretend, could not have been the *Adrumetum*; becauſe, as that place lyes nearly in the ſame direction with *Lempta* and *Herkla*, the ſame wind, which brought *Cæſar* to the promontory of *Hamam-et*, would have conducted him within the port, that was formed by it. Neither could *Cæſar*, from the ruggedneſs of the ſituation of *Hamam-et* on one ſide, and being waſhed by the ſea on the other, have made a tower round about it, as he did round about *Adrumetum*, as hath been already obſerved. Neither have we a view either from *Hamam-et*, or the bay before it, of the coaſt of *Clybea*, a circumſtance which agrees with the ſituation of *Herkla* [4].

Beſides, *Varus* [5] is ſaid to have left *Adrumetum* in the ſecond watch of the night, and to have arrived at *Leptis* early in the morning. No conſiderable diſtance therefore could have been betwixt *Leptis* and *Adrumetum*. It appears likewiſe that *Cæſar* marched with his army from *Adrumetum* to *Leptis* in two days, and returned the third to

[2] *Cæſar* circum oppidum vectus, natura loci perſpecta, redit ad caſtra. *Hirt. de bel. Afric.* § 3.

[3] *Varus* celeritate *Cæſaris* audaciaque motus, cum univerſa claſſe, converſis navibus, *Adrumetum* verſus fugere contendit. Quem *Cæſar* in millibus paſſuum IV conſecutus —— triremem hoſtium proximam —— cepit: reliquæ naves hoſtium promontorium ſuperârunt, atque *Adrumetum* in *Cothonem* ſe univerſæ contulerunt. *Cæſar* eodem vento promontorium ſuperare non potuit; atque in ſalo in ancoris ea nocte commoratus &c. *Hirt. Bell. Afric.* § 56.

[4] A *Clupea* ſecundum oram maritimam cum equitatu Adrumeti, Cn. Piſo cum Maurorum circiter III millibus apparuit. *Id.* § 3.

[5] *Varus*, vigiliâ ſecundâ *Adrumeto* ex *Cothone* egreſſus, primo mane *Leptim* univerſa claſſe vectus, &c. *Id.* § 55.

Ruſ-

Ruſpina[6], where he had lodged the firſt night. Now, if *Hamam-et* was the *Adrumetum* and *Ruſpina* the half-way (as may be ſuppoſed) to *Leptis*, theſe marches muſt have been nearly XL *Roman* M. a day: too much even for the hardieſt veterans of *Cæſar's* army to accompliſh; much more for ſuch unexperienced[7] troops as he had then with him; who were ſcarce recovered from their ſea-ſickneſs; who had likewiſe a variety of ſkirmiſhes and difficulties to retard their marches[8]. Neither indeed was this a ſeaſon for long journies; the days at this time conſiſting only of about nine or ten hours. Nay further, as *Ruſpina* lay within VI M. of *Leptis*; the firſt day's march (upon a ſuppoſition that *Hamam-et* was the *Adrumetum*) muſt have been near LXX M. which is altogether impoſſible. Nay further, the *Itinerary* places *Adrumetum* CCCCXL furlongs, (*i. e.* LV M.) from *Neapolis*, and LXXXV M. from *Carthage*. Provided then *Hamam-et* was the *Adrumetum*, *Neapolis* or *Nabal* would be ſituated L M. too near to it in the one caſe, as *Carthage* would be XXX M. too near it in the other.

Adrumetum has often changed its name.

Another argument why *Herkla* ſhould be the *Adrumetum* rather than *Hamam-et*, or any other place, may be drawn from the alteration that might have been made more than once in its name. For as it was uſual, both with the *Greeks* and *Romans*, to change the old names of their cities in honour of their emperours; ſo it was no leſs common for one emperour, upon doing ſome ſignal good offices to a favourite city, to have his own name ſubſtituted in the place of his predeceſſor's. Thus *Procopius*, *de Ædificiis*, c. vi. tells us that *Adrumetum* was called in his time *Juſtiniana*, in reſpect to the emperour *Juſtinian*; as for the ſame reaſon it might afterwards have been changed into *Heraclea*, out of the like ſentiments of gratitude to his diſtant ſucceſſor *Heraclius*.

Suſa.

Adrumetum being thus reſtored to the ancient geography, let us now proceed to *Suſa*, the next remarkable place upon the coaſt, at about five leagues to the S. E. It is the chief mart of this kingdom for oil and linen, and may be reckoned one of the moſt conſiderable and wealthy cities of the *Tuniſeens*. Here are ſeveral vaults, *granate* pillars, and other tokens of its having been formerly a place of ſome repute:

[6] Eo die caſtra poſuit ad oppidum *Ruſpinam*, kalendis Januar. (§ 5.) inde movit et pervenit ad oppidum *Leptin.* (§ 6.) ad III non. Jan. caſtra movet; *Lepti*que VI cohortium præſidio cum Saſerna relicto, ipſe rurſus, unde pridie venerat, *Ruſpinam* cum reliquis copiis convertit. (§ 8.)

[7] Ad oppidum oppugnandum non ſatis copiarum habebat, et eas *tironum.* § 5. *ibid.*

[8] Itaque caſtra quum movere vellet, ſubito ex oppido erupit multitudo——— et ejus agmen extremum inſequi cœperunt——quod cum ſæpius facerent; et modo inſequerentur, modo rurſus ab equitibus in oppidum repellerentur, &c. *Id. ibid.*

probably one of thoſe towns [9] which ſubmitted to *Cæſar* in his march to *Ruſpina*. For *Suſa* is built upon the northern extremity of a long range of eminences, which, as *Hirtius* [1] has well deſcribed them, reach as far as *Surſeff*, the ancient *Sarſura*. Behind it, all along to *Sahaleel*, we have a view of that extenſive plain, which is taken notice of likewiſe by the ſame author. But as there are no traces of a port either at this place, or for ſeveral miles on each ſide of it: as it is ſituated likewiſe too near the ſea [2], and at too great a diſtance from *Leptis*, *Suſa* does not ſeem to agree with the ancient *Ruſpina*, to which *Hirtius* has aſcribed all or moſt of thoſe circumſtances.

Sahaleel, *the* RUSPINA.

A league and a half from *Suſa* we paſs over a valley with a briſk tranſparent rivulet running through it, and emptying itſelf afterwards into the ſea. Half a league further, under the ſame chain of eminences with *Suſa* is *Sahaleel*, where we have likewiſe ſome remains of antiquities. This village is ſituated at a good mile's diſtance from the ſea, and therefore bids fairer to be the ancient *Ruſpina* than *Suſa*; eſpecially as the ſea before it not only forms itſelf into a bay, but has alſo a communication with a ſmall lake, which was probably the port mentioned by *Hirtius: Sahaleel* having no other water than what is drawn from wells, may very well account for the neceſſity that *Cæſar* lay under of being ſupplied from another place: which, from the many difficulties he met with in the way to it [3], occaſioned by *Scipio's* army being poſſeſſed of all this country to the northward, ſeems to have been from the rivulet juſt now deſcribed.

Monaſteer.

Five miles over-againſt *Sahaleel*, upon the extremity of a ſmall *Cape*, is *Monaſteer*, a neat thriving city, walled round like *Suſa*. Large pieces of marble, and other the like ancient materials, are not commonly met with at this place; however, from its ſituation, and the command it would have thereby of the two bays of *Sahaleel* and *Leptis*, we may ſuſpect it to have been of *Carthaginian* or *Roman* extraction; tho' the preſent name is of too modern a date to lay claim to either.

[9] In itinere (ex Adrumeto) ex oppidis et caſtellis legationes venere: polliceri frumentum; paratoſque eſſe, quæ imperâſſet, facere. *Hirt. Bell. Afric.* § 5.

[1] Hic campus (pone *Ruſpinam*) mirabili planitie patet millia paſſuum xv; quem jugum ingens a mari ortum, neque ita prælatum, veluti theatri efficit ſpeciem. In hoc jugo colles ſunt excelſi pauci, &c. *Hirt. Bell. Afric.* § 34. *Scipio* interim, cognito *Cæſaris* diſceſſu, (a caſtris prope *Ruſpinam*) cum univerſis copiis *per jugum Cæſarem* ſubſequi cœpit —§ 58. *Scipio* confeſtim *Cæſarem* per ſuperiora loca conſecutus, millia paſſuum VIII a *Thapſo* binis caſtris conſedit. § 68. *Labienus* per jugum ſummum collis, dextrorſus procul milites ſubſequi non deſiſtit. § 63.

[2] Portus (*Ruſpinæ*) abeſt ab oppido millia paſſuum II. *Id.* § 9.

[3] *Cæſar* vallum ab oppido *Ruſpina* uſque ad mare deducere et a caſtris alterum eodem—Equitatus eorum (*Scipionis*, &c.) circum *Cæſaris* munitiones vagari; atque eos, qui pabulandi aut *aquandi* gratia extra vallum progreſſi eſſent, excipere. *Hirt. Bell. Afric.* § 19 & 22.

Two

Two leagues to the ſouthward of *Monaſteer* is *Lempta*[4], which denotes a port or ſtation for veſſels. This was the *Leptis* or *Leptis parva* of the ancients; the other *Leptis* being in the kingdom of *Tripoly*, ſeveral leagues to the ſouthward. *Lempta* has been a mile or more in circuit; but at preſent nothing of it remains beſides the ruins of a caſtle, with a low ſhelf of rocks, that probably made the northern mound of the ancient *Cothon*. *Buno* acquaints us, that *Leptis* is what we now call *Aracca*: perhaps he meant *Herkla*, as there is no other village of the like ſound upon the ſea-coaſt. Lempta, *the* LEPTISPARVA.

A few miles to the weſtward of *Lempta* are the ruins of *Agar*, another of *Cæſar's* ſtations; which *Hirtius* tells us was XVI M. from *Thapſus*. The rocky ſituation, with the quantity likewiſe of ſtones and ruins that are ſeen at this place, might induce the *Arabs*, (according to their facility of invention) to alter a little the old name, and call it, as they do at preſent, *Boo Hadjar*, or *The father of a ſtone*, *i. e. The ſtony city*. Boo Hadjar, *or* AGAR.

Between *Boo Hadjar* and *Demaſs*, within four miles of the latter, there is a large lake of ſalt-water, which reaches within half a league of *To-bulba*. This is the lake taken notice of by *Hirtius*[5]; as *To-bulba*, a ſmall maritime village, may lye near the place where *Cæſar* erected a fort to prevent *Scipio's* ſending in ſuccours, by this narrow paſſage, to *Thapſus*. *A lake of ſalt-water*. To-bulba.

Demaſs, the ancient *Thapſus*, is ſituated upon a low neck of land three miles to the eaſtward of *To-bulba*. By the great extent of its ruins, it appears to have been the moſt conſiderable city on this ſide *Carthage*; tho', by the taxation[6] in *Cæſar's* time, it ſhould have been much ſmaller than *Adrumetum*. The walls, caſtles, and houſes of better faſhion, at *Suſa* and *Monaſteer*, have received large contributions from theſe ruins and thoſe of *Herkla*. Demaſs, *the* THAPSUS.

There is ſtill remaining, in defiance of time and the ſea, a great part of the *Cothon*, which was built in frames, in the ſame manner as I have deſcribed the walls of *Tlem-ſan*. The compoſition likewiſe is made up of ſmall pebbles and mortar, ſo well cemented and knit to- *The* Cothon *of* Thapſus.

[4] Viz. a לבח quod *punice* ſtationem ſignificat. *Boch. Chan.* l. i. cap. 24. See *Lucan. Bell. Civ.* l. iv. 951.

Proxima *Leptis* erat, cujus *ſtatione* quieta
Exegere hiemem.

[5] Erat ſtagnum ſalinarum, inter quod et mare anguſtiæ quædam non amplius mille & quingentos paſſus intererant; quas *Scipio* intrarre, et *Thapſitanis* auxilium ferre, conabatur. § 62.

[6] *Thapſitanis* HS xx millia, conventui eorum xxx millia; *Adrumetanis* HS xxx, conventui eorum HS L millia, mulctæ nomine, imponit. § 15. *Exc.* p. 8. B.

gether,

gether, that a ſolid rock cannot be more hard and durable. It is very probable that, in ſubmarine works of this nature, the *Romans* might mix and temper this mortar with the *earth of Puteoli*, which has a ſurprizing property of hardening under water.

The bay of Lempta.

The *Capes* of *Demaſs* and *Monaſteer* form the bay of *Lempta*, which muſt have afforded a variety of ports and ſtations for veſſels in former times. For an iſland, from *Demaſs* almoſt as far as *To-bulba*, runs parallel with the ſouthern ſhore; there is likewiſe another which reaches from *Monaſteer*, the half-way nearly to *Lempta*; whilſt the *Jowries* the *Tarichiæ* as they ſeem to be of *Strabo*, lye over-againſt *Lempta* and *To-bulba*. *Cæſar* was ſo well apprized of the importance of the *Tarichiæ* (and there are no other iſlands to the northward) that he thought fit to appoint ſeveral ſtationary veſſels[7] to ſecure them.

The Jowries *the Inſ.* TARICHIÆ.

El Medea *or* Africa, *the* Turris Hannibalis.

El Medea, called likewiſe *Africa* by the moderns, is ſituated upon a *Peninſula* five miles to the S. of *Demaſs*, and appears to have been formerly a place of great ſtrength and importance. The port, which was an *area* nearly of a hundred yards ſquare, lyes within the very walls of the city, with its mouth opening towards *Cap-oudia*; but is not capable at preſent to receive the ſmalleſt veſſel. *Leo*[8] ſays that it was founded (it might have been poſſibly rebuilt) by *Mahdi*, the firſt patriarch of *Kair-wan*, and therefore aſſumed his name: but there is ſomething too polite and regular in ſeveral of the remaining capitals, entablatures, and other pieces of the ancient maſonry (even defaced as they are at this time) to ſuſpect the founder of them to have been an *Arabian*. *Thuanus*[9] has given us a juſt deſcription of this place at the ſame time he has miſtaken it for the ancient *Aphrodiſium*; which was more probably at *Faradeeſe*, a ſmall village and port in the plains of *Hamam-et*.

Salecto, *the* SULLECTI.

Five miles to the ſouthward of *El Medea* is *Salecto*, the *Sullecti* or *Sublecte* of the *Middle Age*; where we meet with the ruins of a very large caſtle, little inferiour in extent to the tower of *London*. It ſeems to have been erected for the ſecurity of a ſmall creek, or port,

[7] Claſſe, circum inſulas portuſque diſpoſuit; quo tutius commeatus ſupportari poſſet. § 20.

[8] El *Mahdia* oppidum noſtris fere temporibus à *Mahdi* primo *Cairaon* pontifice conditum; ad mare Mediterraneum exſtructum; muris, turribus, atque portis munitiſſimis, ornatum; portum habet frequentiſſimum. *J. Leo*, p. 222.

[9] Ea urbs *(Aphrodiſium)* in humili ac plano ſaxo fundata majorem partem mari alluitur, eoque plerumque vadoſo, ut triremes ad eam commode accedere non poſſent, qua parte terram attingit CCXXX tantum paſſuum ſpatio; valido muro crebris per intervalla turribus et propugnaculis diſtincto: vallata urbi collis imminet acclivi à ſeptentrione deſcenſu, ſed a tergo undique præruptus, qui à præſidiariis Turcis tenebatur. *Thuan. Hiſt.* l. vii.

that

that lyes below it to the S. W. This place or *El Medea*[1] ſhould be the tower or *Rus urbanum*, as *Juſtin* calls it, of *Hannibal*; from whence he is ſaid to have embarked after his flight from *Carthage*.

Elalia, a large extent of ruins, is ſituated upon the borders of a fertile plain, which reaches from *Salecto* to within a few miles of *Sbe-ah*. Beſides ſuch ruins as it has in common with other places, we have here ſeveral ciſterns with large paved *areas* built over them, in order to receive the rain-water that, in the rainy ſeaſon, was to fill and repleniſh them. Several conveniences of the like nature are diſperſed all over this dry country; which, according to tradition, were made by *Sultan Ben Eglib*; a prince who, for his publick ſpirit and warlike exploits, is very juſtly had in the greateſt veneration and remembrance. *Elalia* ſeems to be the *Acola* or *Acilla* of the ancients, which *Ptolemy* has accordingly fixed in this ſituation; *i. e.* betwixt *Thapſus* and *Ruſpæ*. In *Peutinger's Tables* likewiſe we ſee *Anolla*, corruptly no doubt for *Achola*, placed to the S. of *Sullecti* and VI M. to the N. of *Ruſpæ*. As *Sbe-ah*, therefore, from the name and ſituation of it, appears to be the ancient *Ruſpæ*; *Achola*, by lying at VI M. diſtance to the N. of it, may, with the greateſt exactneſs, be fixed at this place.

Elalia, *the* ACHOLA.

Sbe-ah, *or* RUSPÆ.

A little way from *Sbe-ah* is *Ca-poudia*, the *Caput Vada* of *Procopius*, the *Ammonis Promontorium* of *Strabo*, and the *Promontorium Brachodes* of *Ptolemy*, a low narrow ſtrip of land, which ſtretches itſelf a great way into the ſea. Upon the very point of it we have the ruins of the city that was built there by *Juſtinian*[2]: where there is likewiſe a high round watch-tower. We meet with two more of the like kind betwixt this place and *Sfax*; all of them very proper and neceſſary guides to mariners, who cannot be too cautious in approaching this low and dangerous coaſt.

Ca-poudia, *the* CAPUT VADA.

The two flat and contiguous iſlands of the *Querkineſs* are ſituated to to the S. E. of *Ca-poudia*, at the diſtance of five leagues. Theſe are the *Cercina* and *Circinitis* of the old geography, though inaccurately placed by *Agathemer*[3], over-againſt *Thena*; from whence they lye at nearly ten leagues diſtance, towards the N. E.

The iſlands Querkineſs, *the* CIRCINA *and* CIRCINITIS.

Agathemer, *Strabo*, and other ancient geographers, fix the beginning of the *Leſſer Syrtis* at theſe iſlands; though, from the following cir-

The limits of the Leſſer Syrtis.

[1] Quum equi, quo in loco juſſi erant, præſto fuiſſent, nocte via cita regionem quandam *agri Vocani* tranſgreſſus (*Hannibal*) poſtero die mane inter *Acillam* et Thapſum *ad ſuam turrim* pervenit; ibi eum parata inſtructaque remigio excepit navis.—Eo die in Circinam inſulam trajecit. *Liv.* l. xxxiii. § 34. Vid. *Juſt. Hiſt.* l. xxxi.

[2] Vid. *Procop. de Ædificiis Dn. Juſtiniani*, c. vi.

[3] *Agath. Geogr.* l. i. c. 5.

cumſtances,

cumſtances, it ſhould rather commence at *Ca-poudia*. For from this *Cape* to the iſland *Jerba*, we have a ſucceſſion of ſmall flat iſlands, banks of ſand, oozy bottoms, and ſmall depths of water; which redound to the no ſmall advantage of the neighbouring inhabitants; who, by wading a mile or two into the ſea, and fixing ſeveral hurdles of reeds in various windings and directions all the way as they go along, they thereby encloſe a number of fiſhes. Something like this has been taken notice of by *Strabo*[4].

The flux and reflux. The eaſterly winds were too violent whilſt I travelled along the coaſt of the *Leſſer Syrtis*, to obſerve the flux and reflux[5] of it from whence ſome authors have derived the name[6]. However I was informed, agreeably to the account which *Agathemer*[7] has left us, that, at *Jerba* particularly, the ſea riſes twice in twenty-four hours a fathom or more above it's uſual height. The like has been obſerved in the *Gulph of Venice*, which ranges along with it in the ſame meridian, and therefore is equally ſubject to the like preſſure or attraction.

Sfax. *Sfax*, *Asfax*, or *El Sfakuſs*, is a neat thriving city, about xx M. to the S. W. of the *Querkineſs*. It is walled round like *Suſa* and *Monaſteer*: where likewiſe, by the ſame extraordinary indulgence of their *Kaide*, the inhabitants enjoy the fruits of their induſtry; carry on a good trade in oil and linen; and know little of that oppreſſion which is ſeverely practiſed in many other places of *Barbary*. *Buno*[8] makes *Sfax* to be the *Taphræ* of *Cluver*; but it is more probably of modern extraction, taking its name from the quantity of *fakouſe* or cucumbers, that grow in the neighbourhood.

Thainee, *or the* THENA *or* THENÆ. *Thainee*, the *Thena*, Θήνη, Θίνα, or *Thenæ* of the ancients, is x M. to the S. W. of *Sfax*. It has been built upon a low and rocky piece of ground near two miles in circuit; but as the ancient materials have been all of them employed in the building of *Sfax*; there is ſcarce one piece of marble or hewn ſtone to be met with. This maritime city, ſo famous in the old geography, is not only badly ſituated, but ſeems never to have had either port or *Cothon*. The adjacent country likewiſe is dry and barren, with neither fountain nor rivulet to refreſh it, nearer than at five miles diſtance to the S. W. Here we croſs a pretty large brook, called *Wed el Thainee*, or *The River of Thainee*: which indeed, provided *Marius*, in his expedition againſt *Capſa*, continued his marches not through the inland-country but along the ſea-

4 *Strab.* l. xiii. p. 1188. 5 *Plin.* l. v. c. 4. 6 *Solin.* c. vi. *Dion. Perieg.* l. 198.

7 Viz. ἀ σύρω, *traho*, quod in acceſſu et receſſu arenam et cœnum ad ſe trahit et congerit. Vid. *Euſtath. Comm.*

8 Μεγάλαι δ' εἰσὶν περὶ αὐτὴν (S. *Meninx.* S. *Jerba.*) παλίρροιαι. *Geogr.* l. i. c. 5.

9 *Cluv. Geogr. cum notis Bun.* &c. p. 394.

coaſt of *Bizacium*, this or the *Tarff*, a few leagues further to the S. ſhould be the *Tanais*; where, as *Salluſt*[1] informs us, the *Romans* took in their proviſion of water.

Maha-reſs, with the ruins of an old caſtle, is four leagues to the S. W. of *Thainea*. This was probably the ancient *Macodama*, or *Macomadibus*, as it is called in the *Itinerary:* and a little way from it is the river *Tarff*, which has its fountains near the ruins of *Tarfowah*, probably the ancient *Taphrura* or *Taparura*, four leagues to the weſtward. The caſtle of *Ungha*, ſurrounded with moraſſes, and without any anchoring ground before it, is two leagues from *Mahareſs*. It does not appear for what intent the founder, *Sultan Ben Eglib*, made choice of this ſituation, unleſs it was to ſecure ſome wells of good water that are dug near it. At *Ellamaite*, four leagues further, we meet with a number of ſepulchres, without either beauty or inſcriptions; and then paſſing by *Seedy Meddub*, a *Mooriſh* ſanctuary, and croſſing the dry channel of *Auronde*, we come to *Woodriff*, and other date-villages of leſſer note; each of them watered by rivulets.

Maha-reſs, *the* MACODAMA.

Tarfowah or *Taphrura* *Ungha*.

Ellamaite.

Gabs lies three leagues from *Wood-riff*, and twelve from *Ellamaite*. This was the *Epichus* of [2] *Scylax*, and the *Tacape* of other anciént geographers [3], where we have a heap of ruins with ſome beautiful granate pillars ſtill ſtanding. Theſe are all of them ſquare and about twelve foot long, and ſuch as I have not met with in any other part of *Africa*. The old city, where we ſee theſe ruins, was built upon a riſing ground at half a mile's diſtance from the new, having been formerly waſhed by the ſea, which formed itſelf here into a bay of near half a mile in diameter. But at preſent the greateſt part of this bay is filled up and gained from the ſea; which, from the great ſhallowneſs of it, and the daily reception of mud and roots from the river, will eaſily ſubmit to ſuch alterations and incroachments.

Gabs, *or* TACAPE, *or* EPICHUS.

At *Gabs* there are ſeveral large plantations of palm-trees; though the dates are much inferior, both in ſize and taſte, to thoſe of the *Jireed*. But the chief branch of trade, for which this *Emporium*, as *Strabo* [4] calls it, is famous at preſent, ariſes from the *Al-hennah*, which is plentifully cultivated in all their gardens. This beautiful odoriferous plant, if it is not annually cut, and kept low, as it is uſually in other

[1] Cum ad flumen [*Tanam* al. *Tanaim*] ventum eſt, maxima vis utrium effecta. Ibi—jubet, omnibus ſarcinis abjectis, aqua modo ſeque et jumenta onerare. Dein—noctem totam itinere facto, conſedit; idem proxuma facit. Dein tertia, multo ante lucis adventum pervenit in locum tumuloſum, ab *Capſa* non amplius duum millium intervallo. *Sall. Bell. Jug.* § 96.

[2] *Scyl. Perip.* p. 46. [3] *Ptol.* l. iv. c. 3. *Plin.* l. v. cap. 4. [4] *Strab.* l. xvii. p. 1188.

places, grows ten or twelve foot high, putting out its little flowers in cluſters, which yield a moſt grateful ſmell, like camphor; and may therefore be alluded to *Cant.* i. 14. where it is ſaid, *My beloved is to me as a cluſter* (הכפר) *of Cypres*, or Al-hennah, *in the vincyards*, or gardens *of Engedi*. The leaves of this plant, after they are dried and powdered, are diſpoſed of to good advantage in all the markets of this kingdom. For with this, all the *African* ladies, that can purchaſe it, tinge their lips, hair, hands, and feet; rendering them thereby of a tawny ſaffron colour; which, with them, is reckoned a great beauty. The *Alhennah*, no leſs than the palm, requires to be frequently watered; for which purpoſe the river that runs through theſe plantations, is cantoned out, as it ſeems to have been in the time of *Pliny* [5], into a number of channels.

The River TRITON.

This river, the *Triton* of the ancients, falls into the ſea to the northward of the old city, and forms the ground, upon which it was ſituated, into a *peninſula*. Its ſources lie no farther than three or four leagues to the ſouthward of *Gabs*, though it becomes at once, like many other rivers of theſe ſouthern and hotter climates, a conſiderable ſtream. And may not the refreſhing abundance of water in theſe rivers, which are more conſtantly as well as more commonly ſo, than in the northern climates, account in ſome meaſure for *Pſalm* cxxvi. 4. where the return of the captives from *Babylon*, is deſired to be as copious and numerous as their rivers were copious and redundant. Two long chains of mountains, called the *Jibbelleah*, which reach from *El Hammah* to *Maggs*, and are continued from thence to the ſea-coaſt over againſt the iſland *Jerba*, will neither admit of the length nor of that ſucceſſion of lakes which have been attributed to this river by ancient as well as modern geographers. It is impoſſible likewiſe, that it ſhould have its origin in the mountain of *Vaſaletus*, according to *Ptolemy*. For if this be the ſame, as the name ſeems to inſinuate, with the preſent *Uſe-let*, it will lie at far too great a diſtance. And indeed, if we except that ſmall ſpace of ground which is refreſhed by the ſprings of *El Hammah*, all the reſt of the country, in this direction, is parched up for want of water. If then the river of *Gabs* is the river *Triton*, (as cannot, I preſume, be diſputed,) geographers have hitherto been greatly miſtaken in their deſcriptions of it.

[5] *Tacape*, felici ſuper omne miraculum riguo ſolo: ternis fere mill. paſſ. in omnem partem fons abundat, largus quidem, ſed certis horarum ſpatiis diſpenſatur inter incolas. *Plin.* l. xviii. cap. 22. *Tacape* à טחב, locus humidus & irriguus. *Boch. Chan.* l. i. cap. 25.

The

The little village *To-bulba* is three miles from *Gabs*; and ten leagues further is the iſland *Gerba*, or *Jerba*, as the *Tuniſeens* pronounce it, the moſt ſouthern territory of this kingdom. *Jerba* appears to be the *Brachion* of *Scylax*, and the *Meninx* [6] of *Strabo* and others; though *Ptolemy* makes *Meninx* to be a city only of *Lotophagitis*, as he calls this iſland. The fruit of the *Lotus*, which will be hereafter deſcribed, grows plentifully all along this coaſt.

To-bulba.

Jerba, *the* BRACHION, *and* MENINX, *and* LOTOPHAGITIS *Inſ.*

CHAP. V.

Of the moſt remarkable places and inhabitants in the inland country of the ancient Bizacium, *or* Winter Circuit; *together with the correſpondent part of the* Sahara.

BEFORE I give a particular deſcription of the more remarkable places of this province, it may be obſerved, in general, that, for want of a ſufficient number of geographical circumſtances, it will be difficult to fix the ancient names of *Zowareen*, *Youſeph*, *Nabbana*, *Kiſſer*, *Sbecbah*, *Jelloulah*, *Tuſſanah*, and many others of leſſer note; at all which places there are conſiderable heaps of ruins. However, among theſe, *Kiſſer*, from its ſituation with regard to *Keff*, the *Sicca Veneria*, and to *Seedy Abdel Abbus*, or *Mufti*; *viz.* xx M. from the former, according to *Ptolemy*, and xxx from the latter, according to the *Itinerary*; from theſe circumſtances, I ſay, it appears probable, that *Kiſſer* might have been the ancient *Aſſurus* or *Aſſuras* [7]. *Sbeebah* likewiſe, from its ſituation with reſpect to *Kiſſer*, may have been the *Tucca Terebinthina*; as *Jeloulah*, from lying below the mountains of *Uſe-let*, the *Mons Vaſaletus* of *Ptolemy*, may lay in the like claim to be the *oppidum Uſalitanum* of *Pliny*.

The ancient names of ſeveral places not eaſily determined.

To begin then with *Kair-wan*, which is a walled city, and the next in rank after *Tunis* for trade and the number of its inhabitants. It is ſituated in a barren ſandy plain, eight leagues to the weſtward of *Suſa*, and about the ſame diſtance to the S. W. of *Herkla*. At half a furlong from the city, there is a capacious pond and ciſtern, built for the reception of rain-water: but the pond, (which is the chief proviſion for their cattle and ordinary uſes, as the other, the *Elmawahel* of *Abulfeda* [8], is for their own drinking) being either dried up, or elſe

Kair-wan, *the* VICO AUGUSTI.

[6] Fallor an *meninx Punice* ſcribebatur מי נקץ *me-niks*, quaſi dixeris aquas defectus, i. e. deficientes, vel מי נכץ *me-nics*, quaſi dixeris aquas receſſus, i. e. recedentes. *Id. ibid.*

[7] *Cell. Geogr. antiq.* l. iv. c. 4. p. 106. and cap. v. p. 118.

[8] Incolæ Urbis *Kairwan* bibunt aquam pluvialem, quæ hiemali tempore colligitur in piſcina magna, dicta *Elmawahel* الماوهل i. e. *Ciſterna*. *Abulf.* ut ſupra.

beginning to putrify about the middle of the ſummer ſeaſon, it frequently occaſions agues, fevers, and various other diſtempers.

The antiquities of it. We have, at *Kairwan*, ſeveral fragments of ancient architecture; and the great *Moſque*, which is accounted to be the moſt magnificent as well as the moſt ſacred in *Barbary*, is ſupported by an almoſt incredible number of granate pillars. The inhabitants told me, (for a *Chriſtian* is not permitted in *Barbary* to enter the *Moſques* of the *Mahometans*) that there were no fewer than five hundred. Yet among the great variety of columns, and other ancient materials that were employed in this large and beautiful ſtructure, I could not be informed of one ſingle inſcription. The inſcriptions likewiſe, which I found in other places, were either ſo much filled up with cement, or otherwiſe defaced, that the ancient name was not to be found upon any of the ſurviving antiquities. However, as *Kairwan* is ſituated betwixt *Tiſdrus* and *Adrumetum*, though nearer the latter; by the due diſtance of it likewiſe from the river *Mergaleel*, the *Aquis Regiis* (as we may ſuppoſe them to be) of the ancients, it was probably the *Vico Auguſti* of the *Itinerary*. As for the preſent name, it ſeems to be the ſame with *Caravan*[1]; and might therefore originally ſignify the place where the *Arabs* had their principal ſtation[2] in conquering this part of *Africa*.

Uſelett, ſ. Mons Usalitanus. To the weſtward of *Kairwan*, are the high and extenſive mountains of *Uſelett*, the *Mons Uſalitanus* of the ancients; celebrated for the number of its warlike inhabitants. Below them to the ſouthward, are

River Margaleel. thoſe of *Truzza*, watered by the *Mergaleel* and *Defilah*. Coming near the ſea coaſt, and paſſing by at ſix miles diſtance from *Sahaleel*, *Menzil* and

Menzil, *the* Zeta. *Menzil Hyre* (this the *Vacca*, the other the *Zeta* of *Hirtius*[3];) we arrive

Jimmel, *the* Tegæa. at *Jimmel*, the *Tegæa* likewiſe, as it probably was, of the ſame author[4]. All theſe villages lie in an open champaign country, diverſified, as they have been already deſcribed, by large plantations of olive trees.

[1] *Calipha* Africæ *Caruani* ſive *Curubi*, urbe ab *Occuba Nafici* F. ante cc annos in *Cyrenaica* condita, poſt unam & alteram de *Chriſtianis* reportatam ab Arabibus *Victoriam*, *id enim nomen ſonat*, ſedem habuit: cumque urbs confluentis ad habitandum multitudinis capax non eſſet, juxta eam & altera civitas extructa eſt, *Raqueda* dicta. *Thuan.* l. vii. *Curubis* quæ & *Carvenna*. *Ibid.*

[2] *Cairaoan* conditorem habuit *Hucba*, qui univerſi exercitus dux ex *Arabia* deſerta ab *Hutmeno* Pontifice tertio miſſus fuerat; — neque aliam ob cauſam conditum fuiſſe dicunt, quam ut in eo exercitus cum omni præda *Barbaris* atque *Numidis* adempta, ſecure ſe continere poſſent.—Eo tempore quo *Elagleb* regno potitus eſt, anno Hejiræ 184. A. D. 800. tam incolis quam ædificiis auctum. *J. Leo*, p. 223. *Marmol. Hiſt. Afr.* c. xxiv.

[3] *Uzita* (*Zeta* Sall.) quam deſcribit *Ptolemæus* ſub *Adrumeto* & parva *Lepti* nomen *habet* à זַיִת *Zaith*, i. e. oliva vel oliveto. *Hirtius* enim prope *Uzitam* oliveti meminit. *Prius*, inquit, *neceſſe vallem olivetumque tranſgredi*. *Boch. Chan.* l. i. cap 24.

[4] *Cæſar* interim, * caſtris incenſis, * pervenit ad oppidum *Agar* *. *Scipio* interim, cognito *Cæſaris* diſceſſu, cum univerſis copiis per jugum *Cæſarem* ſubſequi cœpit; atque

Below

Below them, ſix miles from *Medea*, is *Surſeff* the *Sarſura* of *Hirtius*. It is ſituated below a ridge of hills, which reach, with few intermiſſions, from *Jimmel* to *Salecto*; and ſeem to be the ſame that are taken notice of by *Hirtius*[5], particularly when he deſcribes the oppoſition that *Cæſar* met with from *Labienus* in the taking of *Sarſura*. Surſeff, *the* SARSURA.

From *Sarſura Cæſar*[6] continued his marches the next day to *Tiſdra*, *Tiſdrus*, or *Thyſdrus*, or *Thyſdrum*, or *Tiſdro*, as it was differently called. It is now known by the name of *Jemme*, and lies about ſix leagues to the S.S.W. of *Surſeff*, and five to the E. by S. of *Elalia*; in the very ſituation that *Ptolemy* has laid down betwixt *Thyſdrus* and *Achola*. The *Itinerary* has likewiſe placed *Tiſdro* thirty-three miles from *Leptiminus* or *Lempta*; which may be a further confirmation of this geographical fact, *viz.* that *Jemme* and *Tiſdro* were the ſame. Here we have ſeveral antiquities; as altars with defaced inſcriptions; a variety of columns; a great many trunks and arms of marble ſtatues; one of which is of the *Coloſs* kind, in armour; another is of a naked *Venus*, in the poſture and dimenſions of the *Medicean*; both of them by good maſters, but the heads are wanting. Jemme, *the* TISDRA.

But *Jemme* is the moſt remarkably diſtinguiſhed by the beautiful remains of a ſpacious amphitheatre, which conſiſted originally of ſixty-four arches, and four orders of columns placed one above another. The upper order, which was perhaps an *Attick* building, is moſt of it tumbled down. *Mahomet Bey* likewiſe, in a late revolt of the *Arabs*, who uſed it as a fortreſs, blew up four of its arches from top to bottom; otherwiſe, as to the outſide at leaſt, nothing can be more entire and magnificent. In the inſide likewiſe, the platform of the ſeats, with the galleries and *Vomitoria* leading up to them, are ſtill remaining. The *Arena* is nearly circular: and in the centre of it, there is a deep pit or well of hewn ſtone; where the pillar that might ſupport the *Velum* was probably fixed. By comparing this with other ſtructures at *Spaitla*, *Caſſereen*, and *Hydrah*, it ſeems to have been built near the time of the *Antonines*; agreeing exactly in proportion and workmanſhip with the buildings of that age. And as the elder *Gordian* was proclaimed emperor at this city, it is not improbable, that, in gratitude to the

ab ejus caſtris millia paſſuum VI longe, trinis caſtris diſpartitis copiis, conſedit. *Hirt. Bell. Afric.* § 58.

Oppidum erat *Zeta*; quod aberat à *Scipione* millia paſſuum XI ad ejus regionem & partem caſtrorum collocatum; à *Cæſare* autem diverſum ac remotum, quod erat ab eo longe millia paſſuum XVIII. *Id.* § 59. Oppidum *Vacca*, quod finitimum fuit *Zetæ*. *Id.* § 62.

Erat oppidum infra caſtra *Scipionis*, nomine *Tegæa*. *Id.* § 67.

5 *Cæſar* ad oppidum *Sarſuram* ire contendit—*Labienus* per jugum ſummum collis dextrorſus procul milites ſubſequi non deſiſtit. *Hirt.* ut ſupra, § 63.

6 *Cæſar* ad oppidum *Sarſuram* venit—poſtero die ad oppidum *Tiſdram* pervenit. § 64.

place

place where he received the purple, he might have been the founder of it. Upon one of the medals of the younger *Gordian* we have an amphitheatre, not hitherto accounted for by the medaliſts: but it may be too peremptory perhaps to fix it here at *Tiſdra*.

Hydrah. As *Kairwan* and *Jemme* are the moſt remarkable places on the eaſtern ſide of this province; *Hydrah*, a little below *Gellah* at *Snaan*, near the frontiers of the *Algerines*, is the moſt conſiderable to the weſtward. It is ſituated in a narrow valley, with a rivulet running by it; and appears to be one of the moſt conſiderable places of this country for extent of ruins. For we have here the walls of ſeveral houſes, the pavement of a whole ſtreet intire, with a variety likewiſe of altars and *Mauſolea*. A great number of the latter are very well preſerved; ſome of which lie open to the air, and are built in a round hexagonal or octogonal figure, ſupported by four, ſix, or eight columns: whilſt others are ſquare, compact, and covered buildings, with niches in one or other of the *faſçades*, or elſe with wide open places, like ſo many *balconies* upon their tops. But the inſcriptions, which belonged as well to theſe as to a number of other antiquities, are either defaced by time or the malice of the *Arabs*. Upon a triumphal arch, more remarkable for its largeneſs than beauty, we have the following inſcription; wherein not the leaſt notice is taken, as it was uſual in other places, of the city, or of the people that erected it.

IMP. CAES. L. SEPTIMIO SEVERO PERTINACI AVG.
P. M. TRIB. POT. III. IMP. V. COS. II. PP. PARTHICO ARABICO.
ET PARTHICO ADIABENICO* DD. PP.

The THUNUDRONUM Col. Provided the leaſt tradition of the former name was preſerved in the preſent, we might ſuſpect it to be the *Tynidrum* or *Thunudronum* of the ancients, which, as it is placed by *Ptolemy* more than 2° to the weſtward of *Sicca*, will not be far diſtant from this ſituation.

Leaving the lofty mountains of *Elboulejiah* on the left hand, with the ſanctuary of *Seedy Boogannim*, the *Wad al Ha-taab*, or *River of Wood*, together with the fine plains of *Fuſanah* on the right, we come to Spaitla, *the* SUFETULA. *Spaitla*, the ancient *Sufetula*. This city lies about twelve leagues to the S. of *Keff*, and is one of the moſt remarkable places in *Barbary* for the extent and magnificence of its ruins. For there is firſt of all a ſumptuous triumphal arch of the *Corinthian* order, conſiſting of one large arch, with a leſſer one on each ſide of it; with theſe few words of the dedication remaining upon the architrave.

* In my journal, I had copied it AZIABENICO, though I know not how juſtly.

IMP.

To face p. 119

The Back Front
of three contiguous Temples
at SUFETULA
To
The Revd. Jos. Gilbert DD
Dean of Exeter &c
Scale of twenty Feet

IMP. CAESAR AVG. - - - -
- - - - - ONIN - - - - -
- - - - - - - - - - - - -
- - - - - - - - - - - - -
- - SVFFETVLENTIVM - -
- - HANC EDIFICAVERVNT
ET DD. PP.

From this arch, all along to the city, there is a pavement like that at *Hydrah*, of large black ſtones, with a parapet wall, raiſed breaſt-high on each ſide of it, intended perhaps to hinder the populace from incommoding the emperor in his *triumphant* entrance into the city. Near the end of this pavement, we paſs through a beautiful *Portico*, built in the ſame ſtyle and manner with the triumphal arch, which conducts us afterwards into a ſpacious court. Here we have the ruins of three contiguous temples; whoſe ſeveral roofs, *porticos*, and *façades*, indeed are broken down; but the reſt of the fabric, with its reſpective columns, pediments, and entablatures, remain perfect and entire. There is in each of theſe temples a nich, fronting the *portico*; and behind that of the middlemoſt, we have a ſmall chamber, which might have ſerved for the veſtry. *The antiquities and*

Spaitla is pleaſantly ſituated upon a riſing ground, ſhaded all over with juniper trees. A little brook glides along the N. E. ſide of it, which afterwards, in directing its courſe towards *Gelma*, loſes itſelf in the ſand. This circumſtance, which is very common to ſeveral other rivers which I have ſeen, and upon which occaſion they are ſaid to be *raſhig*, i.e. *to run no more*, ſeems to be alluded to *Jer.* xv. 18. *Wilt thou be altogether unto me as a liar, and as waters that fail? Job* vi. 15. *My brethren have dealt deceitfully as brooks, and as the ſtream of brooks they paſs away.* *ſituation of* Sufetula.

Gelma is the ancient *Cilma* or *oppidum Chilmanenſe*. It lies ſix leagues to the E. of *Sufetula*, and appears to have been a large city, with the *area* of a temple ſtill remaining. Galma, *or* Cilma.

Caſſareen, the *Colonia Scillitana*, memorable for the martyrdom of its citizens, is ſituated upon an eminence, ſix leagues to the W. S. W. of *Spaitla*. The river *Derb* runs winding below it; and upon a precipice that hangs immediately over this river, there is a triumphal arch, more remarkable for the quantity and goodneſs of the materials, than for the beauty and elegance of the deſign. It conſiſts of one large arch, with an *Attick* ſtructure above it, having likewiſe ſome

rude *Corinthian*-like ornaments beſtowed upon the entablature; though the pilaſters themſelves are entirely *gothick*. Yet notwithſtanding the rudeneſs of the workmanſhip and the oddneſs and peculiarity of the ſituation, we find the founder of it very gratefully commemorated in the following inſcription.

COLONIAE *SCILL*ITANAE
Q. MANLIVS FELIX C. FILIVS PAPIRIA RECEP.
TVS POST ALIA ARCVM QVOQVE CVM INSIGNIBVS
COLONIAE SOLITA IN PATRIAM LIBERALITATE
EREXIT OB CVIVS DEDICATIONEM
DECVRIONIBVS SPORTVLAS CVRIIS EPVLAS - - -

Below this inſcription, juſt above the key-ſtone of the arch, there is another in leſſer characters; but the only words I could trace out were,

INSIGNIA CVRANTE M. CELIO AN. CV.

If this part of *Africa* then was made a *Roman* province upon the younger *Scipio's* deſtroying *Carthage*, *viz.* A.U.C. DCVIII, *ante Chriſtum* CXLVI. then the *æra* here mentioned, *viz.* CV. will be XLI years before *Chriſt*, or in the ſecond year of the reign of *Auguſtus*.

In the plains below *Caſſareen* we are entertained with the like variety of *Mauſolea* that have been deſcribed at *Hydrah*; where we have likewiſe the following inſcriptions.

Upon the *façade* of a tower-like *Mauſoleum*, with a balcony on the top of it.

M. FLAVIVS SE
CVNDVS FILIVS
FECIT.
I. FLAVIO SECVN
DO PATRITIO
VIXIT ANN. CXII. H. S. L.
FLAVIAE VRBANAE
MATRI PIAE. VIX.
ANN. CV. H. S. E.

Upon

Upon the lower part of the ſame *Mauſoleum* we have an elegy, in ſmaller characters, which begins with *hexameter* verſe, and concludes alternately with them and *pentameters*.

A few lines of it will be a ſufficient ſpecimen of the poetical genius of the *Scillitanians* at that time.

SINT LICET EXIGVAE FVGIENTIA TEMPORA VITAE
PARVAQVE RAPTORVM CITO TRANSEAT HORA DIERVM
MERGAT ET ELISIIS MORTALIA CORPORA TERRIS
ASSIDVE RAPTO LACHESIS MALE CONSCIA PENSO &c.

Upon the *façade* of a ſquare *Mauſoleum*, with *Corinthian* pillaſters.

- -
MILITAVIT L. ANNIS IV. IN LEG. II. - - - - -
LIB. - - - TESSER. OPTIO. SIGNIFER. - - - - -
FACTVS EX SVFFRAGIO LEG. E. - - - - - - -
7. LEG. I. M. 7 LEG. X. GEM. - - - - - - - - -
7. LEG. III. AVG. - - - 7. LEG. XXX. VIP.
7. LEG. VI. VIC. 7. LEG. III. CYR. 7. LEG. XV. APOL.
7. LEG. II. PAR. 7. LEG. I. ADIVTRICIS
CONSECVTVS OB VIRTVTEM IN EXPEDITIONEM
PARTHICAM CORONAM MVRALEM VALLAREM
TORQVES ET PHALARES EGIT IN
DIEM OPERIS PERFECTI ANNOS LXXX.
SIBI ET
CLAVDIAE MARCIAE CAPITOLINAE
KONIVGI KARISSIMAE QVAE EGIT
IN DIEM OPERIS PERFECTI
ANNOS LXV ET
M. PETRONIO FORTVNATO FILIO - - - - -
MILITAVIT ANNIS VI. 7. LEG. XVIII. PRIMIG. -
LEG. II. AVG. - - - - VIXIT ANN. XXXV. - - - -
CVI FORTVNATVS ET MARCIA PARENTES
CARISSIMO MEMORIAM FECERVNT.

Caſſareen ſeems to have received its preſent name from the *Mauſolea*; which, at a diſtance, appear like ſo many *Caſſareen*, i.e. *towers* or fortreſſes.

Seven leagues from *Caſſareen* to the S.S.W. is *Ferre-anah*, which appears to have been the largeſt city of *Bizacium*, notwithſtanding Ferre-annah.

the remains of its ancient grandeur, conſiſt in a few *granate* and other pillars; which, by ſome extraordinary chance or benevolence of the *Arabs*, are left ſtanding upon their pedeſtals. It has been exceedingly well watered. For, beſides a plentiful brook, that runs under the walls, there have been ſeveral wells within the city, each of them ſurrounded with a *corridore* or gallery, and vaulted over with *cupolas*. Yet this, and a good air, are the only benefits and conveniencies that *Ferre-anah* can urge in favour of its ſituation. For, if we except a ſmall ſpot of ground towards the S. which the inhabitants cultivate, by refreſhing it at proper times with the rivulet; all the reſt of the circumjacent country is dry, barren, and inhoſpitable, for want of water. The proſpect likewiſe (which is the only one it enjoys) to the weſtward, terminates, for the moſt part, upon ſome naked precipices; or elſe, where the eye has liberty to wander over ſome broken cliff, or through ſome narrow rugged valley, we are entertained with no other view than of a deſert, ſcorched up with perpetual drought, and glowing with the ſun-beams.

The THALA *of* Salluſt, *Bell. Jug.* § 94.

This loneſome ſituation, and the great ſcarcity of water in the adjacent country, may induce us to take *Ferre-anah* for the ancient *Thala*. For *Salluſt*[1] informs us, that *Thala* was of great extent, ſituated like *Capſa*, in the midſt of mountains and deſerts; and that there were ſome fountains without the city: all which circumſtances agree exactly with the ſituation of *Ferre-anah*. It is recorded likewiſe, that *Jugurtha*[2], after he was defeated by *Metellus*, fled to the deſert, and from thence directed his flight to *Thala*. *Thala* then muſt have lain ſomewhere to the eaſtward of the place from whence he fled; for had it belonged to the weſtern parts of the deſerts of *Numidia*, *Jugurtha*[3], as it is related in another place, would not have had that exceedingly long journey, through a ſucceſſion of deſerts, to the *Gætuli*; inaſmuch as their country lay immediately behind the *Mauritaniæ*. *Salluſt* acquaints us further, that the neareſt river to *Thala* was at fifty miles diſtance[4]; and that *Metellus*, in his purſuit of *Jugurtha*, took in there

[1] Erat inter ingentes ſolitudines oppidum magnum atque valens, nomine *Capſa*: cujus conditor *Hercules Libys* memorabatur, ** *Metellus Thalam* magna gloria ceperat, haud diſſimiliter ſitum, munitumque: niſi quod apud *Thalam* non longe a mœnibus aliquot fontes erant. *Sall. Bell. Jug.* § 94.

[2] Ea fuga *Jugurtha* impenſius modo rebus ſuis diffidens, cum perfugis & parte equitatus in ſolitudines, dein *Thalam* pervenit. *Id.* § 78.

[3] *Jugurtha* poſtquam, amiſſa *Thala*, nihil ſatis firmum contra *Metellum* putat, per magnas ſolitudines, cum paucis profectus, pervenit ad *Gætulos*. *Id.* § 82.

[4] Inter *Thalam* flumenque proxumum, in ſpatio millium quinquaginta, loca arida atque vaſta eſſe cognoverat (*Metellus*). Igitur omnia jumenta ſarcinis levari jubet, niſi frumento dietum decem: ceterum utres modo & alia aquæ idonea portari, &c. § 78.

a pro-

a proviſion of water for his journey over the interjacent deſert. Now whether *Metellus*, according as the late defeat happened near *Cirta* or *Vacca*, (i. e. *Bayjau*) (for it is uncertain at which place,) directed this his purſuit after *Jugurtha* to *Thala* by *Tipaſa*, if the battle was near *Cirta*, or by *Sufetula*, if it was at *Vacca*, (becauſe ſeveral narrow *defiles* and rugged mountains will not permit an army to paſs conveniently by *Caſſareen*, where there is likewiſe a river) we have either the river *Hataab*, or elſe the river of *Sufetula*, that will very well anſwer to this geographical circumſtance. Whereas had *Thala* been ſituated in the *Sahara*, to the weſtward or ſouthward of *Numidia*, there would have been no neceſſity for making this proviſion of water; inaſmuch as, in thoſe parts of *Gætulia* and *Numidia*, there is no ſcarcity at all both of rivulets and fountains. Neither indeed can we ſuppoſe *Thala* to have been a city of the *Beni Mezzab*, or of the country of *Wadreag*, the only remaining diſtricts that can lay claim to it; becauſe the neareſt river to any of theſe places is at much more than fifty miles diſtance; not to mention the want there will ſtill be of other geographical circumſtances, which correſpond exactly with *Ferre-anah*. *Ferre-anah* therefore, for theſe reaſons, may be well taken for the ancient *Thala*, that has been ſo much inquired after by the modern geographers.

Ferre-anah differs very little in ſound from *Feraditana*, of which name there were two *epiſcopal ſees* in the *middle age*. What is related alſo concerning the ſituation of *Telepte*, agrees likewiſe with this place. and as *Thala* perhaps is not mentioned in hiſtory by any author later than *Tacitus*[5], (for *Florus*[6] ſeems to ſpeak of it as in the time of *Metellus*,) or *Telepte* by any other earlier than St. *Cyprian*[7]; there may be ſome room to conjecture that *Thala* and *Telepte* were the ſame. *Procopius* moreover deſcribes *Telepte*, as a frontier town[8] of this province; ſuch as we find *Ferre-anah* to have been. The author likewiſe of the *Itinerary*, according to the annotations of *Cellarius*[9], places *Tacape* and *Telepte* in the ſame direction with *Capſe*, and at equal diſtances, or LXX *Roman* M. from it. Now the firſt of theſe circumſtances agrees well enough with *Ferre-anah*, inaſmuch as it lies in a

and the ancient TELEPTE.

[5] Præſidium, cui *Thala* nomen. *Tacit. Annal.* l. iii. c. 31.

[6] *Thalam*, gravem armis, Theſauroqueregis, deripuit (*Metellus.*) *L. Flor.* l. iii. cap. 1.

[7] *Donatianus Teleptenſis* primæ ſedis epiſcopus Prov. *Byzacenae. Donatianus Teleptenſis primus Concil. Carthag.*

[8] Ἐν ἐσχατιᾷ τῆς χώρας. *De Ædif.* cap. 6.

[9] Ex mediis ** ſola *Capſe* nota eſt ex *Ptolemæo*, per quam ſi a *Tacapis* ducas lineam & ſimul milliaria attendas, quæ inter *Capſen* ſunt & *Telepten*, in plagam & locum ubi *Telepte* fuit, linea perducet. *Cell. Geogr. Antiq.* l. iv. c. 4.

N. W. and S. E. direction nearly with *Tacape* and *Capſe*, i. e. *Gabs* and *Gafsa*, according to their preſent names. But the other circumſtance indeed, of their being equidiſtant from *Capſe*, can be admitted only with ſome reſtriction: becauſe *Gafsa* lies XC M. from *Gabs*, and XLV only from *Ferre-anah*. However, the whole diſtance betwixt *Gabs*, by the way of *Gafsa*, to *Ferre-anah*, is actually CXXXV M. which are not much ſhort of the CXLI M. that are laid down betwixt *Telepte*, *Capſe*, and *Tacape*, by the *Itinerary*.

Gafsa, CAPSE *or* CAPSA

Twelve leagues to the S. E. by E. of *Ferre-anah*, is *Gafsa*, the ancient *Capſa* or *Capſe*, another of the ſtrong cities of *Jugurtha*. It is built upon a riſing ground, in the like melancholy ſituation with *Ferre-anah*; with this difference only, that here the landſcape is ſomewhat more gay and verdant, by the proſpect we have from it of the palm, the olive, the *piſtachio*, and other fruit trees. But this agreeable ſcene is of ſmall extent, and ſerves meerly to refreſh the eye in the view it is to have afterwards of an interchange only of barren hills [1] and valleys. The water which refreſhes theſe plantations ariſes from two fountains; the one within the citadel, the other in the centre of the city. The latter, which was probably the *Jugis aqua* of *Salluſt* [2], as it might be likewiſe the *Tarmid* [3], of *Edriſi*, was formerly covered with a *cupola*. It is ſtill walled round, and diſcharges itſelf into a large baſon, deſigned originally to bathe in. This fountain and the other unite before they leave the city, and form a pretty large brook, which, from the quantity of the water, and the rapidity of the ſtream, might continue its courſe to a great diſtance, were it not conſtantly employed and drunk up in the uſes abovementioned.

In the walls of ſome private houſes, and particularly of the citadel, (a weak modern building, that faces the *Jereed*,) there is a great confuſion of altars, *granate* pillars, entablatures, *&c.* which when entire, and in their proper ſituations, muſt have been great ornaments to the city: but the following imperfect inſcriptions are all that fell in my way; in the firſt of which is preſerved the ancient name, as it may be preſumed, of this city. And from this circumſtance, toge-

[1] *Ebræi* enim קפצ eſt conſtringere. Hinc merito קפצרת *Capſa* dicitur, quam undique premebant & in arctum cogebant vaſtæ ſolitudines, *ut & montes*. *Boch. Chan.* l. iv. c. 24.

[2] *Capſenſes* una modo, atque ea intra oppidum *Jugi aqua*, cetera pluvia utebantur. *Sall. Bell. Jug.* § 94.

[3] Urbs *Cafsa* pulchra eſt: habet mœnia, & fluvium excurrentem, cujus aqua præſtantior eſt aqua *Caſtiliæ*: habet etiam intra ſe fontem, qui vocatur *Al Tarmid*. *Geogr. Nub.* p. 86.

ther

ther with the *Jugis Aqua*, ſo particularly deſcribed by *Salluſt*, and appropriated to *Capſa*, we may receive ſufficient proof, that the *Capſa* of *Salluſt* and *Ptolemy* were the ſame; notwithſtanding what *Bochart*[4] and *Cellarius*[5] have ſuppoſed to the contrary.

Upon a ſquare ſtone.

- - - - ORTVM NOSTRORVM - - - -
- - - - MAGISTRVM MILIT - - - -
- - - - - - TINIANE CAPSE - - - - - -

Upon a pillar.

IMPERATOR M. AVRELIVS ANTONINVS PIVS
AVGVSTVS PART. MAX. BRIT. MAX. TRIB. POT.
COS. - - - - - FEST.

Gorbata lies four leagues to the S. S. W. of *Gafsa*, with a brook of brackiſh water running by it; which, notwithſtanding, by digging pits and letting it percolate into them through the interjacent banks of ſand, becomes thereby tolerably palatable. It is built upon one of thoſe hemiſpherical hillocks, that lie in great variety round about it; affording a proſpect particular, and delightful enough at a diſtance. *Gorbata* ſhould be the ancient *Orbita*, which, together with *Capſa*, are placed by *Ptolemy* among the eaſtern cities of *Adrumetum*; the ſhape and faſhion perhaps of theſe little eminences might have given occaſion to the name. Gorbata, *the* ORBITA.

After *Gorbata* we enter upon that part of the *Sahara* which is called *Al Jeridde* or *El Jereed*, i. e. *The dry Country*, being of the very ſame nature and quality with thoſe parts of *Gætulia*, which have been already deſcribed. Here the villages are built in the ſame manner, with mud walls and rafters of palm trees; ſo that very little more will be required in the deſcription of this, than to give an account of the *Lake of Marks*, and to enumerate the principal villages, formerly the ſeats of the *Cinethii*, *Machlyes*, *Auſes*, and *Maxyes* of the old geography. *The general deſcription of the* Jereed.

We are to obſerve therefore, that there are few or no antiquities, or indeed any thing worthy of our notice, at *Sbekkah*, the *Cerbica* of *Ptolemy*, eighteen leagues to the S. W. by W. of *Gafsa*; at *Te-gewſe*, *Its villages*, viz. Shekkah, *the* CERBICA, &c.

[4] *Chan.* l. i. cap. 24. [5] *Antiq.* l. iv. cap. 4. p. 91.

the

the *Tiohaſa*, twelve leagues to the S. W. by S. at *Ebba*, the *Thabba*, in the neighbourhood of *Te-gewſe*; at *Tozer*, the *Tiſurus*, four leagues to the S. W. of *Te-gewſe*; at *Nefta*, the *Negeta*, five leagues to the S. W. of *Tozer*. In croſſing the *Lake of Marks* into the diſtrict of *Nif-zowah*, the like remark may be made at *Telemeen*, the *Almæna*, ten leagues to the E. S. E. of *Te-gewſe*; at *Ebillee*, the *Vepillium*, two leagues to the S. E. of *Telemeen*; and at the many other villages of the *Jereed*: though by ſeveral pieces of *granate* and other marble; by the almoſt ſurpriſing preſervation of their old names; by a word or two likewiſe, of ſome ancient inſcription, the *Romans* may be traced out through moſt of theſe villages. The trade and intereſt of them all lies altogether in dates; which they exchange for wheat, barley, linen, and other commodities, that are brought hither from all parts of this and of the neighbouring kingdoms. At *Tozer* particularly, whoſe dates are the moſt eſteemed, and which is become thereby the principal mart, there is a great traffick carried on by ſeveral merchants, who travel once a year as far as the *Niger*, and bring with them from thence a number of *black* ſlaves, whom they uſually exchange for dates, at the rate of one *black* for two or three quintals of that fruit.

The trade.

The Shibkah El Low-deah, *or* Lake of Marks, *or the* Bahyre Pharaoune.

The *Shibkah El Low-deah*, or *Lake of Marks*, divides the villages in the neighbourhood of *Tozer* from thoſe in the province of *Nif-zowah*. It is ſo called from a number of trunks of palm-trees, that are placed at proper diſtances, to direct the *Caravans* in their marches over it. Without ſuch aſſiſtances, travelling here would be both dangerous and difficult, as well from the variety of pits and quick-ſands, that could not otherwiſe be avoided, as becauſe the oppoſite ſhore, (as we may properly call it,) either in paſſing from *Te-gewſe* to the province of *Nif-zowah*, or from hence to *Te-gewſe*, has no other tokens to be known by, beſides their *date trees*. And as theſe are rarely ſeen at above five hours diſtance, or ſixteen miles at the moſt, great miſtakes, without ſuch convenient marks and directions, might be committed in paſſing over a plain of this extent, where the *horizon* is as proper for aſtronomical obſervations as the ſea itſelf.

This lake reaches near twenty leagues from E. to W. and the breadth, where I paſſed it, was about ſix. Yet it is not all of it a collection of water; there being ſeveral dry places interſperſed all over it, that look like ſo many iſlands; to which they have been very properly compared by the ancients. To the eaſtward eſpecially, in the ſame meridian with *Telemeen*, there is one of theſe iſlands, which, though uninhabited, yet is very large and well ſtocked with date trees. The *Arabs* tell us, that the *Egyptians*, in one of their invaſions of this country, halted here for ſome time; and that this plantation originally

nally ſprung from the ſtones of thoſe dates, which they brought along with them for their proviſions. And probably, from this account and tradition, the adjacent portion of the circumambient lake might have been called *Bahyre Pharaoune*, i. e. *The Plains of Pharaoh.*

The ſituation of this lake, with regard to the ſea, the *Syrtes*, and the river *Triton*, ſhould induce us to take it for the *Palus Tritonis* of the ancients; and that the *iſland* I have mentioned is the *Cherſoneſus* of the *Sicilian* hiſtorian [6], and the *Phla* of *Herodotus*. *Pallas* [7] likewiſe, who, with the *Libyan* women, attended *Seſoſtris* in his *Aſiatic* expedition, and was ſuppoſed to owe her origin to this lake, might have made this iſland the chief place of her reſidence. *Mela* places the *Palus Tritonis* near or upon the ſea-coaſt; and *Callimachus*, (as he is quoted by *Pliny* [8]) on this, *(i. e.* on the *Cyrenaic)* ſide of the leſſer *Syrtis*; both which circumſtances agree with the preſent topography of this lake. But we ſhall ſtill be at a loſs to account for the river *Triton*, which, according to *Ptolemy* and other ancient geographers, is made to paſs through this lake, in its courſe to the ſea. For the river, (and there is no other at a very great diſtance) which falls into the ſea at *Gabs*, the ancient *Tacape*, muſt undoubtedly be the *Triton*; yet, as I have already obſerved, it has not the leaſt communication with this lake. And beſides, the water both of this river and of the brook of *El Hammah*, which lies nearer to the lake, is very ſweet and wholeſome; whereas that of the lake (and indeed of moſt others that I have taſted in *Africa,)* has a ſaltneſs not inferior to ſea-water; a circumſtance, which alone may be a ſufficient proof, notwithſtanding the concurrent accounts of the old geography, too much followed by the modern, that there could be no communication betwixt them. This circumſtance, however, may be a proof that the *Lake of Marks*, or the *Palus Tritonis*, was likewiſe the *Lacus Salinarum* of *Æthicus* and *Iſidore*.

The PALUS, PALLAS, *or* TRITONIS. PHLA Inſ.

Leaving *Ebillee* and *Mags*, we travel near xxx M. through a loneſome uncomfortable deſert, the reſort of cut-throats and robbers; where we ſaw the recent blood of a *Turkiſh* gentleman, who, with three of his ſervants, had been murdered two days before by theſe aſſaſſins. Here we were likewiſe ready to be attacked by five of theſe *Harammees*, who were mounted upon black horſes, and cloathed, to

[6] Τὰς δ' ἐν Αμαζόνας ** κτίσαι πόλιν μεγάλην ἐντὸς τῆς Τριτωνίδος λίμνης, ἣν ἀπὸ τοῦ σχήματος ὀνομάσαι Χερρόνησον. *Diod. Sic. Hiſt.* l. iii. p. 130.

[7] Τὴν Αθηνᾶν μικρὸν πρὸ τούτων τῶν χρόνων γηγενῆ [γεγενεμένην] φανεῖσαν ἐπὶ τοῦ Τρίτωνος ποταμοῦ δι' ὃν καὶ Τριτωνίδα προσηγορεῖσθαι. *Id. ibid.* l. iii. p. 142.

[8] *Plin.* l. v. c. 4.

be

be the leſs diſcerned, with *burnooſes*, (i. e. cloaks) of the like colour. But finding us prepared to receive them, they came up peaceably to us, and gave us the *aſſemmah*. Through all this dreary ſpace, we meet with neither herbage nor water till we arrive within a few miles of *El Hammah*.

El Hammah lies four leagues to the weſtward of *Gabs*, being one of the frontier towns of the *Tuniſeens*; where they have a ſmall caſtle and garriſon. The old city is at a little diſtance, ſtill preſerving ſome tokens of antiquity, though nothing conſiderable. The inſcriptions particularly, which are mentioned by *Dapper* [9] and *Leo*, no longer ſubſiſt; having undergone the like fate with the other ancient monuments and ſtructures of this place.

Elhammah, *or* AQUÆ TACAPITANAE.

El Hammah, to diſtinguiſh it from other cities of the like name, is generally called *El Hammah* of *Gabs*, i. e. *The Baths of Gabs* or *Tacape*; the ſame with the *Aquas Tacapitanas*, which might be its ancient name. For the XVII or XVIII M. in the *Itinerary*, which is the diſtance betwixt *Tacape* and the *Aquas Tacapitanas*, is the very ſame that lies betwixt *Gabs* and *El Hammah*. Theſe Baths are ſheltered fom the weather by low thatched hovels; and their baſons, which, like thoſe at *Mereega*, are about twelve foot ſquare and four in depth, have, a little below the ſurface of the water, ſome benches of ſtone for the bathers to ſit upon. One of theſe *baths* is called the *Bath of the Lepers:* and below it, the water ſtagnates and forms a pool, the ſame perhaps with the *Lake of Lepers*, mentioned by *Leo*. A ſmall rivulet is formed by the water which flows from theſe baths; which, after it has been conducted in a number and variety of ſubdiviſions through the adjacent gardens, is again united; and in directing its courſe towards the *Lake of Marks*, becomes *raſhig*, and loſes itſelf in the ſand. And probably this circumſtance, together with the vicinity of the ſources of the *Triton* to this rivulet, (though they have not the leaſt communication with each other) might give occaſion to the abovementioned error in the ancient geographers, of deducing the *Triton* from the *Palus Tritonis* or *Lake of Marks*. And this may be the more plauſible, as few or no curious perſons have hitherto had the hardineſs to traverſe over theſe deſerts, (the abode and reſort, as I have obſerved, of cut-throats and aſſaſſins) and conſequently where there could have been no opportunity to rectify the miſtake.

The Bedoweens *of this Circuit.*

The principal *Arabs* of this *Winter Circuit*, are the various ſubdiviſions of the *Faraſheeſe* and *Welled Seide*, the moſt conſiderable and numerous tribes of this kingdom. The latter extend themſelves chiefly

9 *Atl. Geogr.* vol. vi. p. 164. *J. Leo*, p. 225.

along thoſe diſtricts, that have been deſcribed under the names of *Sahul* and *Dackul:* but the *Faraſheeſe*, who poſſeſs the midland country, are more frequently met with near *Spaitla* and *Fuſſanah*. The *Nememſhah*, another very powerful *clan*, rarely pay any homage to the *Tuniſeens*, and rove uncontroulably to the weſtward of the *Faraſheeſe* and of the *Welled Seedy Boogannim*, as far as *Gellah* and *Tipaſa*, even to the very *douwars* of the *Henneiſhah*. *Welled Seedy Boogannim*, with their ſanctuary, lie to the northward of the plains of *Fuſſanah*, as far as the mountains of *Ellouleejah* and *Hydrah:* and to the eaſtward of them, near *Sheeba* and *Kiſſir* are the encampments of the *Welled Omran*. The *Welled Matthie* cultivate the rich country near *Youſef* and *Zowareen*; neither do the *Welled Ya-goube* enjoy a leſs fertile ſituation near the walls of *Keff*. The *Bedoweens* upon the frontiers, are the *Welled Booguff*, who frequently diſpute the paſſage of the *Serratt*, with the *Woorgah*, a formidable clan under the juriſdiction of the *Algerines*.

THE

THE NATURAL HISTORY OF BARBARY: PARTICULARLY OF THE KINGDOMS OF *ALGIERS* and *TUNIS*.

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CHAP. I.

Of their husbandry, &c.

SECT. I.

Of the air, winds, weather, seasons, &c.

THE *Tell* or cultivated parts of *these kingdoms*, lying betwixt 34° and 37° *N. Lat.* enjoy a very wholesome and temperate air; neither too hot and sultry in summer, nor too sharp and cold in winter. During the space of twelve years that I attended the *Factory of Algiers*, I found the *Thermometer*, twice only, contracted to the freezing point; and then the whole country (which was very unusual) was covered with snow: nor ever knew it rise to sultry weather, unless the winds blew from the *Sahara*. The seasons of the year insensibly fall into one other; and the great equability in the temperature

The temperature of the air.

perature of *this climate*, appears further from this circumſtance, that the *Barometer* ſhews us all the revolutions of the weather in the ſpace of 1 inch and $\frac{3}{10}$, or from 29 inches and $\frac{1}{10}$ to 30 inches $\frac{4}{10}$.

The winds. The winds are generally from the ſea; i. e. from the W. (by the N.) to the E. Thoſe from the eaſt are common at *Algiers* from *May* to *September*; and then the weſterly winds take place and become the moſt frequent. Sometimes alſo, particularly about the *Æquinoxes*, we very ſenſibly experience that force and impetuoſity which the ancients have aſcribed to the *Africus*[1], or S. W. wind, called *La-betch* by theſe mariners.

The ſoutherly winds, or thoſe from the *Sahara*, which are uſually hot and violent, are not frequent. However they blow ſometimes for five or ſix days together in *July* and *Auguſt*, and are ſo exceſſively ſuffocating, that, during their continuance, the inhabitants, in order to generate freſh air, are obliged frequently to ſprinkle the floors of their houſes with water or vinegar, which is the moſt refreſhing. In the latter end of *January* 1730-31, a violent hot ſoutherly wind immediately followed the thawing of the ſnow; which, for the ſpace of two months, had covered the adjacent country. But both theſe *phænomena* were looked upon as very ſurprizing and unuſual.

Rain, with weſterly winds. The winds from the W. the N. W. and the N. are attended with fair weather in ſummer, and with rain in winter. But the eaſterly winds, no leſs than the ſoutherly, are for the moſt part dry, though accompanied with a thick and cloudy atmoſphere in moſt ſeaſons. It is particular enough, that the mountains of *Barbary* and thoſe of *Italy* and *Spain* ſhould be differently affected with the ſame wind. For the former are conſtantly clear in eaſterly winds, but capped and clouded with thoſe from the weſt, particularly a little before and during the time of rain; the contrary to which, I am informed, falls out in *Spain* and *Italy*.

The Barometer *differently affected by theſe winds.* The *Barometer* riſes to 30 inches $\frac{2}{10}$ or $\frac{3}{10}$ with a northerly wind; though it be attended with the greateſt rains and tempeſts. But there is nothing conſtant and regular in eaſterly or weſterly winds; though for three or four months together, in the ſummer, whether the winds are from one or the other quarter, the *quickſilver* ſtands at about thirty inches without the leaſt variation. With the hot ſoutherly winds, I have rarely found it higher than 29 inches and $\frac{2}{10}$, which is alſo the ordinary height in ſtormy wet weather from the weſt.

[1] *Africus furibundus* ac ruens ab occidente hiberno. *Senec. Nat. Quæſt.* 5.
Una Euruſque Notuſque ruunt, *creberque procellis*
Africus. *Virg. Æn.* i. 89.
Luctantem Icariis fluctibus Africum
Mercator metuens. *Hor. Carm.* lib. i. od. i.

A TABLE *shewing the quantity of rain that fell at* Algiers,

From Autumn 1730, to Spring 1731.

		Inches.	
Several drizling Showers in *Septem.* and *Octob.*		0	,73.
Octob.	29	1	,80.
	30		
	31	0	,35.
Nov.	2	0	,20.
	11	0	,45.
	28	1	,00.
	29	0	,45.
	30	1	,53.
Dec.	1	2	,15.
	17	1	,60.
	24	0	,63.
	27	1	,15.
	30	0	,65.
Jan.	2	1	,10.
	4	0	,26.
	5	0	,90.
	6	1	,00.
	7	1	,43.
	9	0	,70.
	11	1	,10.
	12	0	,80.
	13	1	,20.
	18	1	,16.
	21	0	,35.
	30	0	,35.
Feb.	1	0	,85.
	17	0	,80.
	19	0	,25.
	22	0	,33.
	25	0	,60.
	26	0	,80.
	28	0	,20.
March	1	0	,20.
	29	0	,25.
April	1	0	,80.
	10	0	,25.
	13	0	,15.
	15	2	,03.
	24	0	,13.
		30	,68.

From Autumn 1732, to Spring 1733.

		Inches.	
Octob.	7	1	,35.
	11	0	,33.
	15	4	,25.
	20	0	,25.
	26	1	,35.
	28	1	,00.
Nov.	1	1	,75.
	6	2	,60.
	11	3	,30.
	15	0	,20.
	18	2	,00.
	29	0	,35.
Dec.	2	0	,53.
	6	0	,90.
	7	1	,43.
	8	0	,10.
	11	0	,45.
	20	0	,50.
	24	1	,33.
	26	0	,55.
	28	1	,00.
	30	0	,10.
Jan.	13	0	,15.
	16	1	,30.
	19	0	,30.
Feb.	7	0	,20.
	10	0	,90.
	11	1	,10.
	13	0	,90.
	19	0	,40.
March	5	2	,30.
	6	0	,95.
	7	1	,00.
	8	0	,30.
	12	0	,90.
	13	0	,90.
	14	1	,85.
	15	0	,65.
	19	0	,30.
April	1	0	,80.
	4	0	,55.
	9	0	,75.
	16	1	,00.
	17	0	,35.
	30	0	,30.
May	2	0	,50.
		44	,27.

The quantity of rain water that falls every year.

The ordinary quantity of rain which falls yearly at *Algiers* is, at a *medium*, twenty seven or twenty eight inches. In the years 1723-4 and 1724-5 (which were looked upon as dry years) there only fell about twenty four inches; whereas in 1730-1 (which may be placed among the wet years) the quantity was upwards of thirty. The rains were still more copious *An.* 1732-3, amounting to more than forty inches: but this was so extraordinary, that the like had rarely happened. The showers, particularly *Octob.* 15. and *Nov.* 11. were so remarkably heavy and frequent, that the pipes, contrived to convey the rain water from their *terraces*, as they call the tops of their flat roofed houses, were not wide enough to receive it. Whilst I was at *Tunis* in *February* and *March* 1727-8 it rained forty days successively; but I have not known the like at *Algiers*, where it seldom rains above two or three days together; after which there is usually a week, a fortnight or more, of fair and good weather.

The winter the only rainy season.

Little or no rain falls in this climate during the summer season; and in most parts of the *Sahara*, particularly in the *Jereede*, they have seldom any rain at all. It was likewise the same in the Holy Land, *Prov.* xxvi. 1. where *rain* is accounted an unusual thing in *harvest*; 2 *Sam.* xxi. 10. where it is also mentioned, *from harvest till rain dropped on them:* i. e. their rainy season fell out, as in *Barbary*, in the *autumnal* and winter months: the latter end of the ninth month, which answers to our *January* being described particularly (*Ezr.* x. 9.13.) to be *a time of much rain*. *Babylon* is also described by *Strabo*, l. xv. p. 506. to have been in the like condition with *Tozer*, and the villages of the *Jereede*: κεράμῳ δ' οὐ χρῶνται· οὐδὲ γὰρ κατομβροῦνται, says that curious author.

When I was at *Tozer* in *December*, A. D. 1727. we had a small drizling shower that continued for the space of two hours; and so little provision was made against accidents of this kind, that several of the houses, which are built only as usual (p. 8. 65.) with palm branches, mud, and tiles baked in the sun (corresponding perhaps to, and explanatory of, the *untempered mortar*, *Ezek.* xiii. 11.) *fell down* by imbibing the moisture of *the shower*. Nay, provided the drops had been either larger, or the shower of a longer continuance, or *overflowing*, in the *Prophet's* expression, the whole city would have undoubtedly dissolved and dropt to pieces. The like also, to compare great things with small, might have happened upon the same occasion, even to such of the *Ægyptian Pyramids* as are made of brick: the composition whereof, being only a mixture of clay, mud, and (*Exod.* v. 7.) straw [1], slightly blended and kneaded together, and afterwards baked in the sun, would have made as little resistance. The

[1] Paleis cohærent lateres. *Phil. Jud. in vita Mosis.*

ſtraw which keeps theſe bricks together, and ſtill preſerves its original colour, ſeems to be a proof that theſe bricks were never burnt or made in kilns.

SECT. II.

Of their huſbandry and products.

THE firſt rains fall here ſome years in *September*, in others a month later; after which the *Arabs* break up their ground, in order to ſow wheat and plant beans. This commonly falls out about the middle of *October:* but the ſowing of barley, and the planting of lentils and *garvanços*, as they call the *cicer* or *chich pea*, is a fortnight or three weeks later, or not till the end of *November*. If the latter rains fall as uſual in the middle of *April*, (in the *Holy Land* we find they were a month ſooner, *Joel* ii. 23.) the crop is reckoned ſecure; the harveſt coming on in the latter end of *May* or in the beginning of *June*, according to the heat and quality of the preceding ſeaſons. *The firſt, and latter rains.*

Two buſhels and an half of wheat or barley, are ſufficient to ſow as much ground, as a pair of beeves will plow in one day: which is, a little more or leſs, equal to one of our acres. I could never learn that *Barbary* afforded, yearly, more than one crop; one buſhel yielding ordinarily from eight to twelve; though ſome diſtricts may perhaps afford a much greater increaſe. For it is common to ſee one grain produce ten or fifteen ſtalks. Even ſome grains of the *Murwaany* wheat, which I brought with me to *Oxford*, and ſowed in the *phyſic garden*, threw out each of them fifty. But *Muzeratty*, one of the late *Kaleefas*, or *Vice-Roys* of the province of *Tlemſan*, brought once with him to *Algiers* a root that yielded fourſcore; telling us, that (in conſequence of a diſpute concerning the reſpective fruitfulneſs of *Egypt* and *Barbary)* the *Emeer Hadge*, or prince of the (weſtern) pilgrims, ſent once, to the *Baſhaw* of *Kairo*, one that yielded ſix ſcore. *Pliny** mentions ſome that bore three or four hundred. It likewiſe happens that one of theſe ſtalks will ſometimes bear two ears: whilſt each of theſe ears will as often ſhoot out into a number of leſſer ones; thereby affording a moſt plentiful increaſe. And may not theſe large prolific ears, when *ſeven are* ſaid *to come up upon one ſtalk* (*Gen.* xli. 5.) *The quantity of their crops.*

* Tritico nihil eſt fertilius: hoc ei natura tribuit, quoniam eo maxime alat hominem: utpote cum e modio, ſi ſit aptum ſolum, quale in *Byzacio Africæ* campo, centeni quinquageni *(centum ſolum alibi memorantur)* modii reddantur. Miſit ex eo loco *Divo Auguſto* procurator ejus ex uno grano (vix credibile dictu) quadringenta paucis minus germina, extantque de ea re epiſtolæ. Miſit & *Neroni* ſimiliter CCCXL ſtipulas ex uno grano. *Plin.* l. xviii. cap. 10.

explain what is further mentioned ver. 47. of *the ſeven fruitful years* in *Egypt*, viz. that *the earth brought* them *forth by* HANDFULLS.

Different ſorts of grain. But there is one kind only of *wheat* and *barley*, which is generally cultivated; and theſe are each of them produced in ſuch plenty, that, whilſt *Oran* was in the poſſeſſion of the *Algerines*, our *Engliſh* merchants uſually ſhipped off from thence every year, ſeven or eight thouſand ton, even of what could well be ſpared by the inhabitants. However they both of them differ in quality, according to the ground, whereon they are ſown. For what grows upon the plains of *Buſdeerah*, is accounted the beſt in the kingdom of *Tunis*; whilſt, at *Algiers*, the corn of *Teſſailah* and *Zeidoure*, and eſpecially the *Murwaany* (as they call a larger ſort of wheat at *Medea*) keep up the greateſt reputation.

Rice *planted in* Barbary. Near the *Sikke* and *Habrah*; in the *Mattijiah*; upon the banks of the *Hamah* below *Conſtantina*; and all along the *Mejardah*; (in all which places they have a great command of water during the whole ſummer,) the inhabitants cultivate *rice*, *Indian* corn, and particularly a white ſort of *millet* called *Drah*[1]; which they prefer to barley in fattening their cattle. The ſparrows (which in the open country build upon trees only) the linnets, goldfinches, and other little birds, are ſo fond of this grain, that, when it grows ripe, they are obliged to watch it and hinder them from ſettling upon it, by making all the day long a perpetual ſcreaming and noiſe. The extemporary booths which they make with branches of trees, reeds, and bulruſhes, to ſhelter themſelves at theſe times from the violent heat of the ſun, and are entirely neglected and forſaken in the other ſeaſons, may be the ſame, and for the like purpoſe, *with the cottage in a vineyard*, and *with the lodge in a garden of cucumbers*, mentioned, *Iſ.* i. 8. as emblems of the diſconſolate ſtate of *Jeruſalem*.

No oats *planted.* *Oats* are not cultivated at all by the *Arabs*; the horſes of this country (ἵππος ἀκοσήσας, *Hom. Il.* z. 506.) feeding altogether upon barley and ſtraw, the latter of which, as their graſs is never made into hay, is the uſual fodder in the *Holy Land*. This we learn from 1 *Kings* iv. 24. where it is ſaid, *they brought barley and ſtraw for the horſes and dromedaries. Like an ox that eateth hay*, *Pſal.* cvi. ſhould be, *Like a beeve that eateth graſs*.

They tread out their corn. Theſe nations continue to tread out their corn after the primitive cuſtom of the Eaſt. Inſtead of beeves they frequently make uſe of mules and horſes, by tying, in like manner, by the neck, three or

[1] The *Draba Arabum* of the *Botaniſts*, though a quite different plant, unqueſtionably comes from this, the former being a ſpecies of *Thlaſpi*, with which *millet* has no manner of affinity.

four

four of them together, and whipping them afterwards round about the *Nedders*[4] (as they call the *treading floors*, the *Libycæ areæ* Hor.) where the ſheaves lye open and expanded, in the ſame manner as they are placed and prepared with us for threſhing. This indeed is a much quicker way than ours, though leſs cleanly. For as it is performed in the open air, *Hoſ.* xiii. 3. upon any round level plat of ground, dawbed over with cows dung, to prevent, as much as poſſible, the earth, ſand, or gravel from riſing; a great quantity of them all, notwithſtanding this precaution, muſt unavoidably be taken up with the grain: at the ſame time the ſtraw, which has been taken notice of as their chief and only fodder, is hereby ſhattered to pieces: a circumſtance very pertinently alluded to 2 *Kings* xiii. 7. where *the king of Syria* is ſaid *to have made the Iſraelites like the duſt by threſhing.*

After the grain is trodden out, they winnow it, by throwing it up againſt the wind with a ſhovel: the τὸ πτύον, *Mat.* iii. 12. *Luke* iii. 17. there rendered a *fan*; too cumberſome a machine to be thought of; whereas the text ſhould rather run, (*whoſe ſhovel*, or *fork*, the ὄργανον ὀδοντικὸν, as my learned friend Mr. *Merrick* rather takes it to be) which is a portable inſtrument, *is in his hand*; agreeable to the practice that is recorded, *Iſ.* xxx. 24. where both the ſhovel and the fan are mentioned, as *the chaff* that is thereby *carried away before the wind*, is oftner alluded to, *Job* xxi. 18. *Pſ.* i. 4. *Iſ.* xxix. 5. and xxxv. 5. *Hoſ.* xiii. 3. The broken pieces of *Nebuchadnezzar's* image particularly are very beautifully compared, *Dan.* ii. 25. to *the chaff of the ſummer threſhing floor, carried away by the wind.* *How they winnow it.*

After the grain is winnowed, they lodge it in *mattamores* or ſubterraneous magazines, as the cuſtom was formerly of other nations[5]: two or three hundred of which are ſometimes together; the ſmalleſt holding four hundred buſhels. *Hirtius*[6] acquaints us, that the *Africans* made uſe of theſe pits for the greater ſecurity of their proviſions from an enemy. It is more probable, that they were contrived in thoſe earlier ages, as they continue to be to this day, for the greater eaſe and convenience of the inhabitants. For it cannot be ſuppoſed, *Corn preſerved in* mattamores *or pits.*

[4] This figure and uſe of the *Nedder* ſeems to be implied, (1) In the *Hebrew* name גרן *goran*, from whence perhaps the *Greek* γύρος, and the *Latin gyrus*; (2) In the *Greek* appellation ἅλων; and (3) In the *Æthiopic*, *awdy*; viz. from whipping the cattle that tread out the corn *round about* or *in a circle*. [5] Utiliſſimè ſervantur (frumenta) in ſcrobibus, quos *Siros*, (Σειρὸς, *Var.* l. i. c. 57.) vocant, ut in *Cappadocia* & in *Thracia*. In *Hiſpania* & *Africa*, ante omnia, ut ſicco ſolo fiant, curant: mox ut palea ſubſternatur. Præterea cum ſpica ſua conduntur, [*non ita hodie mos Africæ eſt.*] Ita frumenta ſi nullus ſpiritus penetret, certum eſt nihil maleficum naſci. *Plin.* l. xviii. cap. 30.

[6] *Hirt. Bell. Afric.* § 57.

that either the ancient *Nomades*, or the present *Arabs*, would be at the expence of erecting storehouses of stone, when they could, at a much cheaper rate, and at every station, where they encamped to gather in their harvest, be served with these.

The sorts of pulse. Pease. Beans. Lentils. Garvanços *the* Cicer *or* Chich pea. Leb-lebby, *the* parched pulse, *and* *the* pigeons dung *of the* H. Scriptures.

Beans, lentils, kidney beans, and *garvanços*, are the chiefest of their *pulse-kind*. Pease, which, till of late, were known in the gardens only of the several *christian* merchants, are sown with the first rains, and blossom in the latter end of *February*, or in the beginning of *March*. Beans are usually full podded at that time, and continue during the whole spring; which, after they are boiled and stewed with oil and garlick, are the principal food of persons of all distinctions. After them, lentils, kidney beans, and *garvanços* begin to be gathered; the first of which are dressed in the same manner with beans, dissolving easily into a mass, and making a pottage of a *chocolate* colour. This we find was the *red pottage* which *Esau*, from thence called *Edom*, exchanged for his *birth-right*[7]. But *garvanços* are prepared in a different manner; neither do they grow soft, like other pulse, by boiling; and therefore never constitute a dish by themselves; but are strawed singly as a garnish over *cuscasowe*, *pillowe*, and other dishes. They are besides in the greatest repute, after they are parched in pans and ovens; then assuming the name of *leblebby*. This seems to be of the greatest antiquity; for *Plautus* [8] speaks of it as a thing very common in his time; the like observation we meet with in *Aristophanes*[9]: neither is there, as far as I have been informed, any other pulse prepared in this manner. The *leb-lebby* therefore of these times may probably be the [קלי *kali*] *parched* pulse[9], of the *H. Scriptures*; as *Cassianus* supposes them to be the τρωγάλια *of the Greek authors*[1]: they have likewise been taken [2] for the *pigeons dung*, mentioned at the siege of *Samaria*. And indeed as the *cicer* is pointed at one end, and acquires an ash colour in parching; (the first of which circumstances answers to the figure, the other, to the usual colour of *pigeons dung*,) the supposition is by no means to be disregarded.

The produce of the kitchen garden.

After their corn and pulse, we are to take notice of the roots, pot-herbs, and fruit; of which there is not only great plenty and variety, but a continuance or succession at least of one kind or other throughout the whole year. To give therefore a *specimen* of the *kitchen* and *fruit gardens* of *Barbary*; we are to observe, that *turneps*, *carrots*, and

[7] *Gen.* xxv. 30 and 34. [8] Tam frictum ego illum reddam, quam frictum est *cicer*. *Plaut. in Bacch.* iv. v. ℣ 7. [9] Ανθρακίτων τὸ ῥεβίνθυ. *Aristoph. in Pace.*
[1] 2 *Sam.* xvii. 28. Vid. *Hieronym.* Vers. [2] Superintulit canistrum habens *cicer frictum*, quod illi Τρωγάλια (i. e. Bullaria) vocant. *Cassian. Collat.* viii. [3] Vid. *Boch. Hieroz.* par. post. l. i. c. 7.

cabbages,

cabbages, are equally good and common in moſt ſeaſons. The *liſt el haſhoure*, a ſmall *parſnip-like turnep*, with fibrous roots, has a taſte ſo agreeably pungent, that it is held in the higheſt eſteem, and ſold by weight. A *turnep* like this is ſometimes brought from *Hamburg*. lettuce, or *choſs*, according to the generical name; *endive*, *creſs*, *chervil*, *ſpinage*, all ſorts of *beets*, with the young ſhoots of the *wild* and *garden artichoke*, are in ſeaſon from *October* to *June*: and then follow, during the reſt of the ſummer, *calabaſhas*, *mellow-keahs*[4], *bedin-janns*, and *tomatas*; each of them, in its turn, gives a reliſh to their ſoups and *ragoûts*. Neither ſhould *cazbar* or *coriander* be omitted, as it has always a principal ſhare in the *Mooriſh cookery*. *Sellery* and *colliflowers* arrive here to great perfection. They are ſown in *July*, and fit for gathering the *February* or *March* following. I have ſeen ſeveral *colliflowers* very white, ſolid, and compact, that meaſured a yard or more in circumference. They begin to gather *muſk* and *water melons* about the latter end of *June*; the firſt of which are little ſuperior in taſte to our own; but the latter, for want of a proper heat, have rarely or never been raiſed to perfection in the northern climates. Doubtleſs the *water melon*, or *angura*, or *piſtacha*, or *dillah*, as they call it here, is providentially calculated for the ſouthern countries, as it affords a cool refreſhing juice, aſſwages thirſt, mitigates feveriſh diſorders, and compenſates thereby, in no ſmall degree, for the exceſſive heats not ſo much of theſe as of the more ſouthern diſtricts.

Calabaſhas, &c.

Sellery, &c.

Melons.

In ſpeaking of the *fruit-garden*, we are to begin with the *palm tree*, of which there are ſeveral large plantations in the maritime as well as in the inland parts of this country; though ſuch only, as grow in the *Sahara*, *viz.* in *Gætulia* and the *Jereeda*, bring their fruit to perfection. They are propagated chiefly from young ſhoots, taken from the roots of full-grown trees; which, if well tranſplanted and taken care of, will yield their fruit in their ſixth or ſeventh year: whereas thoſe that are raiſed immediately from the kernels, will not bear till about their ſixteenth. This method of raiſing the φοίνιξ (or *palm*;) and, what may be further obſerved, that, when the old trunk dies, there is never wanting one or other of theſe offſprings to ſucceed it, may have given occaſion to the fable of the *bird*[5] *of that name* dying and another ariſing from it.

The palm tree.

4 *Mellou-keah*, or *mulookiah*, מלוחיא, as in the *Arabic*, is the ſame with the *melochia*, or *corchorus* J. B. II. 982. J. R. H. 259. being a podded ſpecies of *mallows*, whoſe pods are rough, of a glutinous ſubſtance, and uſed in moſt of their diſhes. *Mellow-keah* appears to be little different in name from מלוח, *Job* xxx. 4. which we render *mallows*; though ſome other plant, of a more ſaltiſh taſte, and leſs nouriſhing quality, (as it is joined with the roots of *juniper trees*) may be rather intended.

5 Vid. *Plin.* l. xiii. c. 4. · *Bochart Hieroz.* l. vi. c. 5. parr. poſt. p. 2.

It

male and female. It is well known that theſe trees are male and female; and that the fruit will be dry and inſipid without a previous communication with the male. In the month of *March* or *April* therefore, when the ſheaths that reſpectively incloſe the young cluſters of the male flowers and the female fruit, begin to open (at which time the latter are formed, and the firſt are mealy;) they take a ſprig or two of the male cluſter, and inſert it into the ſheath of the female: or elſe

How the female is fæcundated. they take a whole cluſter of the male tree, and ſprinkle the meal or *farina* of it over ſeveral cluſters of the female[6]. The latter practice is common in *Egypt*, where they have a number of males: but the trees of *Barbary* are impregnated by the former method; one male being ſufficient to impregnate four or five hundred females. *Vid. Phytogr.* N° 204.

Dthuckar, *or* Caprificatio. The *Africans* call this operation *Dthuckar*, which we may render the *fæcundating* or *admiſſion of the male*. The ſame word is likewiſe uſed, (inſtead of the ancient *caprificatio*[7],) for the ſuſpending a few figs of the male, or wild fig tree, upon the female, to hinder the fruit from dropping off or degenerating.

The age of the palm-tree. I was informed, that the *palm-tree* arrives to its greateſt vigour about thirty years after tranſplantation; and continues ſo ſeventy years afterwards; bearing yearly fifteen or twenty cluſters of dates, each of them weighing fifteen or twenty pounds. After this period, it begins gradually to decline, and uſually falls about the latter end of its ſecond century. *Cui placet curas agere ſæculorum* (ſays *Palladius, Oct.* 12.) *de palmis cogitet conſerendis.*

This φιλυδρον φυτὸν requires no other culture and attendance, than to be well watered once in four or five days; and to have a few of the lower boughs lopt off, whenever they begin to droop or wither. Theſe, (whoſe ſtumps or *pollices*, in being thus gradually left upon the trunk, ſerve, like ſo many rounds of a ladder, to climb up the tree either to fecundate it, to lopp it, or to gather the fruit;) are quickly ſupplied with others, which gradually hang down from the top or crown; contributing not only to the regular and uniform growth of this tall, knotleſs, beautiful tree, but likewiſe to its perpetual and moſt delightful verdure. *To be exalted*, Ecclus xxiv. 14. or, *to flouriſh like the palm tree*, are as juſt and proper expreſſions, ſuitable to the nature of this plant, as *to ſpread abroad like a cedar*, Pſalm xcii. 11.

[6] *Plin.* l. xiii. c. 4. expreſſes this by *Pulvere tantum inſperſo fœminis.*

[7] Vid. *Plin. Hiſt. Nat.* l. xv. cap. 19. Menſe Junio, circa ſolſtitium caprificandæ ſunt arbores fici, id eſt, ſuſpendendi groſſi ex caprifico, lino, velut ſerra, perfugi. *Pallad. De re ruſtic.* Caprificari (inquit *Sipontinus*) eſt adhibita caprifico, ne fructus propinquæ ficus ante maturitatem decidant, providere. Vid. *Steph. Theſ.* in voce.

It is usual with persons of better fashion, upon a marriage, at the birth or circumcision of a child, or upon any other feast or *good day*, to entertain their guests with the honey, or *dipse*, as they call it, of the *palm tree*. This they procure *by cutting off the head or crown* (the ἐπικοπὴ of *Theophrastus*, to which the *Hazazon Tamar* is supposed to relate) of one of the more vigorous plants, and scouping the top of the trunk into the shape of a bason; where the sap, in ascending, lodges itself at the rate of three or four quarts a day, during the first week or fortnight; after which the quantity daily diminishes, and, at the end of six weeks or two months, the juices are entirely consumed, the tree becomes dry, and serves only for timber or firewood. This liquor, which has a more luscious sweetness than honey, is of the consistence of a thin syrop, but quickly grows tart and ropy, acquiring an intoxicating quality, and giving by distillation an agreeable spirit or *arâky*, according to the general name of these people for all hot liquors, extracted by the *alembick*. *The honey of the date-tree.*

After the *palm*, we are to describe the *Lotus*, (*Phyt.* N° 265.) whose fruit is frequently mentioned in history; the *Lotophagi* also, a considerable people of these and the adjacent deserts, received their name from the eating of it. *Herodotus* [9] informs us, that the fruit was sweet like the *date*; *Pliny* [1], that it was of the bigness of a *bean*, and of a *saffron colour*; and *Theophrastus* [2], that it grew (thick) like the fruit of the *myrtle tree*. From which circumstances, the *lotus arbor* of the ancients appears to be the same plant with the *Seedra* of the *Arabs*. This shrub, which is very common in the *Jereede* and other parts of of *Barbary*, has the leaves, prickles, flower, and fruit of the *ziziphus* or *jujeb*; only with this difference, that the fruit is here round, smaller and more luscious, at the same time the branches, like those of the *paliurus*, are neither so much jointed nor crooked. This fruit is still in great repute, tastes something like gingerbread, and is sold in the markets all over the southern districts of these kingdoms. The *Arabs* call it *Aneb enta el Seedra*, or, *the jujeb of the Seedra*; which *Olavus* *The* Lotus *and* Lotophagi.

[8] *Herod.* p. 278. *Scyl. Perip.* p. 49. *Strab. Geogr.* l. xvii. p. 1188. *Ptol. Geogr.* l. iv. cap. 3.

[1] *Africa* insignem arborem *Loton* gignit ** magnitudo quæ pyro, quanquam *Nepos Cornelius* brevem tradat. ** Magnitudo huic fabæ, color croci, sed ante maturitatem alius atque alius, sicut in uvis. Nascitur densus in ramis myrti modo, non ut in Italia, cerasi: tam dulci ibi cibo, ut nomen etiam genti terræque dederit, nimis hospitali advenarum oblivione patriæ, &c. *Plin.* l. xiii. c. 17.

[2] Ο δὲ καρπὸς ἡλίκος κύαμος· πεπαίνεται δὲ ὥσπερ οἱ βότρυες, μεταβάλλων τὰς χροιάς. Φύεται δὲ καθάπερ τὰ μύρτα παράλληλα, πυκνὸς ἐπὶ τῶν βλαστῶν· ἐσθιόμενος δὲ ἐν τοῖς Λωτοφάγοις καλουμένοις· γλυκύς· ἡδύς· καὶ ἀσινής. *Theoph. Hist. Plant.* l. iv. cap. 4.

Celsius

Celſius had ſo great an opinion of, that he has deſcribed it as the *Dudaim* of the S. S.

The almond-tree. Moſt of the other fruit trees of this country are common in *Europe:* of which the *almond*, the moſt early bearer, flowers in *January*, and gives its fruit in the beginning of *April*. *Apricots* are fit to gather in *May*; but the *ſaſhee*, or *maſculine apricot* is ſomewhat later, though much preferable; as the eating of it is never attended with ſurfeits: whereas the common *apricot* occaſions a variety of fevers and dyſenteries, and is therefore known in the *Frank* language by the name of *Matza Franca*, or the *killer of Chriſtians*. *Apricot* is a corruption of *præcoqua*, (in the modern *Greek* πρικοκκα) on account of its forwardneſs.

The apricot, *and* ſaſhee.

The plum *and* cherry. In *June* there are two or three ſorts of *plums* and *cherries*; which are neither plentiful nor delicious. However, the *cherry* was formerly in ſo much eſteem, that it was called, as it is at preſent, *Hab el melleck*, i. e. *The berry of the king*. About this time likewiſe is the ſeaſon for *tout* or *mulberries*; but *apples* and *pears* are not ripe before *July* or *Auguſt*, when both of them are in plenty and variety enough, though, if the *Sultan*, i. e. the *king pear*, is excepted, all the reſt are greatly inferior to the more ordinary kinds of our climate; neither will any of them keep till the autumn.

The fig. The black and white *boccôre*, or [3] *early fig:* (the ſame we have in *England*, and which in *Spain* is called *breba*, *quaſi breve*, as continuing only a ſhort time) is produced in *June*; though the *kermez* or *kermouſe*, the *fig* properly ſo called, which they preſerve and make up into cakes [4], is rarely ripe before *Auguſt*. I have alſo ſeen a long dark-coloured *kermouſe*, that ſometimes hangs upon the trees all the winter. For the *kermouſe* in general continue a long time upon the tree before they fall off: whereas the *boccôres* drop as ſoon as they are ripe; and, according to the beautiful alluſion of the prophet *Nahum*, (iii. 12.) *fall into the mouth of the eater, upon being ſhaken*. We may

[3] باكورة *Hebr.* בכירה, *Primus* fructus & *præcox*. *Gol.* Significat ficum *præcocem*, *prodromum*, ſive *protheticam*. *Schind. Lex. Jerem.* xxiv. 2. *Hoſ.* ix. 10. [4] 1 *Sam.* xxv. 18. When they are juſt formed, or not come to maturity, they are the פגים *phagim*, i. e. the ὄλυνθοι, σῦκα ἄωρα, *Cant.* ii. 13. *Apoc.* vi. 13. and the *groſſi*, *Plin.* l. xiii. c. 7. which terms may relate alſo to the immature fruit both of the ſummer and winter crops. *Dried figs*, were the *caricæ*, or ἰσχάδες, and גרוגרות, as *cakes of figs*, were called παλάθη and דבלים. *Figs* are likewiſe taken for the קיץ, or *ſummer fruit*, ſo often named in ſcripture. *Kermez*, or *kermouſe*, the *Barbary* name for *figs*, may have relation to *coreus*, the green or ſcarlet berry or *kermez*, which gives the *crimſon* dye: theſe figs being often of a red or violet colour; the *ficus violaceæ*, as the *botaniſts* call them.

obſerve

obſerve further, that theſe trees do notproperly *bloſſom*, or ſend out flowers, as we render חפרת *Hab.* iii. 17. They may rather be ſaid *to ſhoot out their fruit*, which they do like ſo many little buttons, with their flowers, ſmall and imperfect as they are, incloſed within them. But further notice will be taken of the *fig-tree*, when we ſpeak of the *Holy Land*.

Nectarines and *peaches* are ripe towards the middle of *July*; the former being much larger than ours, and of a better taſte; and the latter, beſides their excellent flavour, will commonly weigh ten ounces. *Auguſt* produces the firſt *pomegranates*; ſome of which are three or four inches in diameter, and of a pound weight. The *pomegranates*, or *malum Punicum* (as originally brought from *Phœnicia*) was formerly one of the moſt delicate fruits of the eaſt, (*Numb.* xiii. 23. and xx. 5. *Deut.* viii. 8. *Cant.* iv. 13.) the *orange*, the *apricot*, the *peach* or the *nectarine*, not having made their progreſs ſo early to the weſtward. Neither ought we to omit the *prickly pear*, or the fruit, as it is commonly thought to be, of the *opuntia*; called perhaps, from being firſt brought to them from *Spain*, *kermez naſſarah*, or *the fig of the Chriſtians*. Several families live upon it during the months of *Auguſt* and *September*; though it is never known to tinge the urine of a bloody colour, as it does in *America*; from whence this fruit, or the *tena* (for that is its proper *Indian* name, not unlike *Heb.* תאן or תאנה *ficus*) originally came.

Pomegranates.

Prickly pear, *or* tuna.

The *wall-nut*, and the *olive* (which only bears copiouſly every other year) are propagated all over *Barbary*. In ſome places alſo they have the *piſtachio* tree; as alſo the *cheſnut*, which is ſmaller, though of as good a reliſh as thoſe from *France* or *Spain*. But the *haſel nut*[1], the *filbert*, the *ſtrawberry*, the *gooſberry* alſo, and *currant*[2], are not, as far as I know, the productions of this climate.

The wall-nut *and* olive.

No haſel, filbert, gooſberry, *nor* currant *trees*.

[1] לוז Heb. لوز *Arab.* [*Luz*] is interpreted (*Gen.* xxx. 37.) the *haſel tree*, inſtead of the *almond* tree, according to the true ſignification: what is rendered *nuts* likewiſe, *Cant.* vi. 11. ſhould have been ſpecified, and called *wall-nuts*; the *Hebr.* אגוז, *ajouze*, and the *Arabic*, *jeuz*, being the ſame. בטנים alſo, which we render ſimply *nuts*, *Gen.* xliii. 11. ſhould be the *piſtachio-nuts*.

[2] Theſe have attained, among the *botaniſts*, the name *ribes*, or *ribeſium*, very probably from the *rhibes* of the *Arabian phyſicians*, though of a different kind; the latter being with a parſnip-like root, with rough leaves, like *bugloſs* or *echium*, but larger and broader: the root and leaves whereof, being pounded and ſqueezed, yield a tart refreſhing juice, which is uſed by the *Turks* in their *ſherbets* and cooling liquors. As this therefore has a great affinity in taſte with the juice of the *gooſberry* and *currant*; theſe, in want or deficiency of the former, might have been ſubſtituted in their place, and have aſſumed the ſame name. The dock above-mentioned is thus deſcribed, *viz.* *Lapathum acetoſum orientale maximum et montanum*; Syris رئبس *rebaſs*. *Beith*, apud *Golium*.

The vintage. The *grape* ripens towards the latter end of *July*, and is ready for the vintage in *September*. The wine of *Algiers*, before the locuſts deſtroyed the vineyards, in the years 1723 and 1724, was not inferior to the beſt *hermitage* either in briſkneſs of taſte or flavour. But ſince that time, it is much degenerated; having not hitherto (1732) recovered its uſual qualities; though, even with this diſadvantage, it may ſtill diſpute the preference with the common wines of *Spain* or *Portugal*. The *lemon* (and ſometimes the *Sevil orange*) *tree* is always in a ſucceſſion of fruit and bloſſoms; but the *China*, as it is commonly called, having been tranſplanted from the country of that name much later, is ſtill conſidered as a foreigner, and bears only towards the latter end of autumn. I need not mention the *quince*, the *medlar*, the *jujeb* and *ſervice tree*, becauſe their fruit is no where in great repute; at the ſame time the trees themſelves are the leaſt ornaments of the fruit garden. Thoſe plants which more immediately relate to the *flower* or the *phyſic* garden, are ranged together alphabetically in the *Phytographia*.

Lemon *and* orange *trees.*

The quince, medlar, &c.

No regularity in their gardens. But we ſhould not leave theſe gardens, without obſerving, that there is nothing laid out in them with method, beauty, or deſign; the whole being a medley only or confuſion of fruit trees, with beds or plantations of *cabbages*, *turneps*, *beans*, *garvanços*, *&c.* nay, ſometimes of *wheat* and *barley* interſperſed. Fine *walks*, *parterres*, and *flower-plats*, would be to theſe people the loſs of ſo much profitable ſoil; as planting in order and regularity, the ſtudy of ſoil and compoſts, or the aiming at any new improvements, would be ſo many deviations from the practice of their anceſtors, whoſe footſteps they follow with the utmoſt devotion and reverence.

SECT. III.

Of the ſoil, ſalts, mineral-waters, hot ſprings, &c.

The quality of the ſoil. THE *ſoil* which ſupports all *trees* and *vegetables*, is, for the moſt part of ſuch a looſe and yielding contexture, that, as I have already obſerved, an ordinary pair of beeves is ſufficient, in one day, to plow a whole acre of it.

Salt petre *earth.* In the *ſalt petre works* of *Tlemſan* they extract about ſix ounces of nitre from every quintal of this ſoil; which is there of a dark colour; and at *Douſan* in *Gætulia*, *Kairwan*, and ſome other places, they have the like quantity from a loamy earth, of a colour betwixt red and yellow. In the ſummer ſeaſon the banks of ſeveral rivers, to the depth of two or three fathoms, are ſtudded all over with nitrous and ſaline knobs and exudations; which, beſides the depth of the ſoil, ſhew us likewiſe how well it is ſaturated with theſe minerals.

For to this grand and inexhauſtible fund of ſalts, we may in a great meaſure attribute the great fertility, for which this country has always been remarkable[1], and ſtill continues to be ſo, without any other manuring, than burning, in ſome few places, the weeds and ſtubble. However, it is ſomewhat extraordinary, and for which we cannot account, that the province of *Bizacium*[2], formerly in ſo much repute for its fertility, ſhould, at preſent, be the moſt barren and unprofitable part of *theſe kingdoms*. *Fertility owing to ſalts.*

That ſalt is here the chief and prevailing mineral, appears as well from the ſeveral ſalt-ſprings and mountains of ſalt, as from the great number of *ſalinæ* and *ſhibkas*, that we meet with almoſt in every diſtrict. The *Wed el Mailah*, near the weſtern frontiers of the *kingdom of Algiers*, and the *Serratt*, upon the eaſtern; the *Hammam Mellwan*, nine leagues to the S. S. E. of *Algiers*; the *ſalt river* of the *Beni Abbeſs*, which runs through the *Beeban*; that of the *Urbyah*, near the *Tittery Doſh*; that from *Jibbel Wooſgar*, in the neighbourhood of *Conſtantina*; the *Mailah*, that falls into the *Shott* over againſt *Meſſeelah*; the *Bareekah*, as it paſſes by *Nickowſe*; and the river of *Gor-bata*, upon the confines of the *Jereed*; theſe, I ſay, beſides ſeveral rills and fountains of leſſer note, are all of them either very ſalt or brackiſh. The water of the river *Gor-bata* is made very palatable, by letting it percolate through ſome contiguous banks of ſand, into little pits, which are occaſionally dug for that purpoſe: but the other rivers, having deeper channels, and running through a richer mould, are not capable of the like filtration. Salt *the prevailing* mineral.

The *ſalt pits* near *Arzew* lie ſurrounded with mountains, and take up an *area* of about ſix miles in compaſs. They appear like a large lake in winter, but are dry in ſummer, the water being then exhaled, and the ſalts that are left behind become cryſtalized. In digging for this ſalt, they paſs through different layers of it; whereof ſome are an inch, others more in thickneſs; in proportion to the quantity of the ſaline particles, wherewith the waters were impregnated before their reſpective concretions. In the like manner we find the *Salinæ* betwixt *Carthage* and the *Guletta*; thoſe of the *Shott*, and of other places either bordering upon or lying within the *Sahara*. *The* ſalinæ.

[1] Non quicquid *Libycis* terit
Fervens area meſſibus.
Senec. in Thyeſt.

Frumenti quantum metit *Africa*.
Hor. Sat. l. ii. *Sat.* 3. 87.

Poſſideat *Libycas* meſſes.
Mart. epig. l. vi. 86.

[2] Vid. Not. 2. p. 137.

The mountains of ſalt. *Jibbel Had-deffa* is an entire mountain of ſalt, ſituated near the eaſtern extremity of the *Lake of Marks*. The ſalt of it is of a quite different quality and appearance from that of the *ſalinæ*, being as hard and ſolid as ſtone, and of a reddiſh or purple colour. Yet what is waſhed down from theſe precipices by the dews, attains another colour; becomes as white as ſnow, and loſes that ſhare of bitterneſs, which is in the *parent rock-ſalt:* it may very properly be ſaid *to have loſt*, if not all, yet a great deal at leaſt, of its original *ſavour*. The ſalt of the mountains near *Lwotaiah* and *Jibbel Miniſs*, is of a grey or blewiſh colour; and, without ſubmitting to the like accidental purification, as at *Had-deffa*, is very agreeable to the palate; the firſt, eſpecially, being ſold, at *Algiers*, for a penny an ounce; which is a great ſum, conſidering the ſmall value of common ſalt all over this kingdom.

The ſalt of the ſhibkas. Of the like quantity and flavour is the ſalt of the *lake of Marks*, and of the other leſſer plains of the ſame nature. Theſe are uſually called *ſibkah* or *ſhibkah*, i. e. *ſaltiſh plats of ground*; and lie commonly under water in winter, when they appear like ſo many extenſive lakes; but are dry in ſummer, when they may be taken for ſo many *bowling greens* prepared for the turf. Such of theſe *ſhibkas* as have a hard and ſolid bottom, without any mixture of gritty mould, retain the ſalt that lies cryſtalized upon them after rain: but others, which are of a more oozy abſorbent nature, ſeldom preſerve any ſaline incruſtations upon their ſurfaces. The chief *ſubſtratum* of the *Lake of Marks* is like a teſſellated pavement, made up of various little cubes of common ſalt; but in thoſe *ſhibkas*, that are of a ſoft and oozy compoſition, as near *Warran* and *Kairwan*, I could never obſerve any ſalt that was concreted; though the earth of them all is very pungent to the tongue, and, by a proper ſolution and management, would undoubtedly yield a copious portion of it.

The method of preparing ſalt petre. I have ſeen ſome large pieces of *ſal gem* brought from the country of the *Beni Mezzab*; but *ſalt petre*, called *mellah haee*, or *live ſalt*, by the *Arabs*, is never, that I know, found in ſubſtance or concreted; being always extracted by art. For which purpoſe ſeveral troughs of brick or ſtone are erected, with wooden grates for their bottoms; and after having lined them within with mats made of *dwarf palm* or *ſpartum*, they fill them with *ſalt-petre-earth*; ſprinkling it with water every ſix or eight hours, for five or ſix days together. The water, by ſoaking through the earth, engages all the nitrous particles that are lodged in its way; and, draining afterwards through the mats, falls into ſmall cavities, made on purpoſe to receive it. When they have thus obtained a ſufficient quantity of brine, they pour it into caldrons, boil

boil it up and refine it. There are ſeveral works of this kind at *Tlemſan*, *Biſcara*, and *Kairwan*, beſides others that are carried on privately among the *Kabyles* and *Arabs*.

The principal uſe of their *ſalt petre* is in the compoſition of *ba-route*, or gun-powder; whereof the ſulphur comes moſtly from *Europe*; whilſt the aſhes of the *burwak*, or *king's ſpear*, or *aſphodelus*, are rather choſen than thoſe of charcoal. Theſe people are well enough inſtructed in the art of graining the gun-powder; though ſomething is ſtill wanting, either in the ingredients themſelves, or in the proportions of them; one ounce, from our *powder mills*, being equivalent to more than a quarter of a pound of that which is made in theſe countries. *Their* gun-powder.

Beſides the ſeveral ſprings and rivulets of ſalt water, which I have here enumerated, theſe countries abound likewiſe with others that partake of ſulphur and other minerals. In which claſs, beſides the [1] *Ain Kidran*, or *Fountain of Tar*; and the *Hamdh*, a rich *ſpaw-water* or *acidula* near the river *Biſhbeſh*; we may place the ſeveral *Hammams*[2], or *Thermæ*. The *Ain el Houte*, which falls into the *Tafna*; together with the greateſt number of the ſprings of the *Jereed*, are ſomewhat more than lukewarm; whilſt thoſe of *Seedy Ebly*, *Warran*, below *Tlemſan*, thoſe of *Mellwan*, *El Hammah* of *Gabs*, and the lower *bath* at *Mereega*, are of a more intenſe heat, and very proper to bathe in. But the *Hammam Meſkouteen*, and the upper *bath* at *Mereega*, are much too hot for that intention; the former boiling, as I made the experiment, a breaſt of mutton very tender in a quarter of an hour. *Their hot, ſulphureous, &c. ſprings and rivulets.*

The *Ain el Houte*, and the ſprings of *Gaſsa* and *Tozer* nouriſh a number of ſmall fiſhes, of the *mullet* and *perch* kind, both of them of an eaſy digeſtion. Of the like quality are the other waters of the *Jereed*; all of them, after they become cold, being greedily drunk by the inhabitants. That particularly of *El Hammah* is perfectly clear and tranſparent, and as ſoft to the palate as rain-water. Unleſs therefore the ſulphureous or other *effluvia*, that it is ſuppoſed to be charged with, quickly fly off, all the great virtues aſcribed to the bathing in it conſiſt only in their genial warmth, and in promoting thereby a copious perſpiration. *The quality of theſe waters.*

Beſides the ſtrong ſulphureous ſteams which iſſue from the *Hammam Meſkouteen*[3], the water is moreover of ſo intenſe a heat, that the rocky ground which it runs over, to the diſtance ſometimes of a hundred foot, is calcined by it. When the ſubſtance of theſe rocks is ſoft and of an uniform ſubſtance and contexture, then the water, by *Of the* Hammam Meſkouteen;

[1] *Vid.* p. 40. [2] From whence our *Humums* [3] *Vid.* p. 63. perhaps from سلق *ſilere.*

making

making equal impreſſions upon them, on all ſides, leaves them in the ſhape of cones, or hemiſpheres; which being uſually ſix foot in heighth and breadth, the *Arabs* imagine them to be ſo many tents of their predeceſſors turned into ſtone. But when theſe rocks, beſides their uſual ſoft chalky ſubſtance, contain likewiſe ſome layers of harder matter, not ſo eaſily diſſolved or calcined, then, according to the figures of theſe layers, and in proportion to the reſiſtance which the water thereby meets with, we are entertained with a confuſion of traces and channels, imagined to be ſheep, camels, horſes; nay, ſometimes men, women and children; whom they ſuppoſe to have undergone the like fate with their tents, of being converted into ſtone. Theſe fountains, I obſerved, had been frequently ſtopped up: or rather, ceaſing to run at one place, broke out in others: which circumſtance ſeems not only to account for the number of cones, but for that variety likewiſe of traces, that are continued from one or other of them, quite down to the river *Zenati*, whoſe channel is at about a quarter of a mile diſtance.

ſuppoſed to be a petrified douwar, &c.

This place, thus diſtinguiſhed by theſe fountains, gives back, in riding over it, the like hollow, fallacious ſound with the *Salfatara* near *Naples*, and made us not a little afraid of ſinking every moment through it. And, as from theſe circumſtances, the ground below was probably hollow; may not the air within theſe caverns, by eſcaping through theſe fountains, afford that mixture of ſhrill, murmuring, or deep ſounds, one or other of which are perpetually iſſuing out with the water? The *Arabs* (to quote their ſtrength of imagination once more) affirm theſe ſounds to be the muſick of the *Jenoune* or *fairies*, who are ſuppoſed, in a particular manner, to make their abodes at this place, and to be the grand agents in all theſe extraordinary ſounds and appearances.

The ground below theſe fountains hollow.

There are likewiſe here other natural curioſities, worthy of our notice. For the chalky ſtone, being calcined or diſſolved, by the ſcalding water, into a fine impalpable powder, and carried down afterwards with the ſtream, lodges itſelf upon the lips of the channels; or elſe, by embracing ſome intervening twigs, ſtraws, or other bodies, immediately hardens; and ſhooting into a bright fibrous ſubſtance, like the *aſbeſtos*, forms itſelf into a variety of glittering figures and beautiful cryſtallizations.

The incruſtating quality of theſe waters.

The river of *El Hammah* and others in the *Jereed*, which are often very large and copious, have their ſources, which are ſometimes one or two at moſt, in large extenſive plains, far removed from any chain of mountains: and as little or no rain falls into theſe diſtricts, this circumſtance

The ſituation of theſe baths.

cumſtance alone ſeems to be no ſmall teſtimony in favour of that ſyſtem, which deduces the origine of fountains from the great *abyſs*. The wells, which I have taken notice of, in *Wadreag*, p. 67. ſeem further to confirm it.

The weight of the water of the *Hammam Mereega* is to that of rain-water, as 836 to 830; that of *Warran* as 837; that of *Meſkouteen* as 850; and that of *Mellwan* as 910. I had no convenience or opportunity of weighing the reſt. *The* hydroſtatical *weight of their water.*

SECT. IV.

Of the earthquakes.

BESIDES the hot mineral *effluvia* that are continually diſcharged by theſe *thermæ*, or *Hammam*, there ſtill remain, below the ſurface, ſome vaſt and inexhauſtible funds of ſulphur, nitre, and other inflammable bodies; of which, the frequency and violence of *earthquakes* may be a ſufficient proof. The *earthquakes*, *ann.* 1723 and 1724, ſhook down a number of houſes, and ſtopt the courſe of ſeveral fountains: but by one of thoſe violent concuſſions, *ann.* 1716, a large piece of ground at *Wamre*, lying in an eaſy deſcent, with a well, a few trees and a farm houſe upon it, glided down, all together, for the ſpace of a furlong, till they were one or other of them ſtopped by the channel of the river *Harbeene*, that empties itſelf there into the *Shelliff*. Several of the breaches, together with ſome pieces of the houſe turned upſide down, lie at a diſtance from each other, and are, to this day, a ſtanding monument of this *cataſtrophe*. I was informed, that the like accident happened, at the ſame time, in ſome of the mountainous diſtricts of *Boujeiah* and *El Khadarah*; literally anſwering, in ſome degree at leaſt, to the expreſſion of the Pſalmiſt, that *the mountains ſkipped like rams, and the little hills like young ſheep*; or that *the earth ſhall reel to and fro like a drunkard, and ſhall be removed like a cottage*, Iſ. xxiv. 20. The greateſt ſhock which we perceived at *Algiers*, 1724, reached from *Miliana* to *Bona*, the air being then clear and temperate, and the *quickſilver* ſtanding at the greateſt height: whilſt other concuſſions were found, upon inquiry, to be of ſmall extent. At theſe times the *barometer* was not affected with any ſudden alterations; neither was there any occaſional change in the air; which was, as at other times, of its uſual temperature, without being more calm or windy, hazy or ſerene. *Of the earthquakes, &c. of this country.*

Earthquakes alſo have ſometimes been felt at ſea. In the ſame year, when I was aboard the *Gazella*, (an *Algerine cruiſer* of fifty guns, bound *Earthquakes at ſea.*

bound to *Bona* to relieve the *garriſon)* we felt three prodigious ſhocks, one after another, as if a weight, at each time, of twenty or thirty ton, had fallen, from a great height, upon the ballaſt. This happened when we were five leagues to the ſouthward of the *Seven Capes*, and could not reach ground with a line of two hundred fathom. The captain, *Haſſan Rice*, told me, that a few years before, when he was upon a cruiſe, he felt a much greater, at the diſtance of forty leagues, as they computed, to the weſtward of the *Rock* of *Liſbon*.

The uſual time of the earthquakes.

The *earthquakes*, during my ſtay at *Algiers*, fell out generally at the end of the ſummer, or in the autumn, a day or two after great rains [1]. The cauſe perhaps may ariſe from the extraordinary conſtipation or cloſeneſs of the earth's ſurface at ſuch times; whereby the ſubterraneous ſtreams will be either ſent back or confined: whereas, in ſummer, the whole country being full of deep chinks and chaſms, the inflammable particles have an eaſier eſcape.

SECT. V.

Of their quarries, wells, foſſils, minerals, &c.

No quarries of marble.

WE cannot trace any of the preceding *phænomena*, (or ſcarce any other branch of the *Natural Hiſtory)* much lower than the ſurface. Thoſe quarries of marble [2], which are taken notice of by the ancients, are not known at preſent; and indeed the ſmall quantity of marble that appears to have been uſed in the moſt ſumptuous buildings of this country, would induce us to believe, that either there never were ſuch quarries, or that the marble was ſent away to other places.

The quality of the ſtone made uſe of in antient buildings.

The materials that were uſed in all the ancient edifices of this country, as at *Jol Cæſarea*, *Sitifi*, *Cirta*, *Carthage*, &c. are not much different, either in their colour or texture, from the ſoft and harder kinds of the *Heddington* ſtone near *Oxford:* whereas the marble of *Numidia*, as it is deſcribed by ancient authors, was of the fineſt contexture, and uſed upon the moſt ſumptuous occaſions. *Solinus* calls it *eximium marmor*, (cap. xxvi.) and *Suetonius* (in *J. Cæſare)* mentions a column of it that was erected to *Julius Cæſar*, with this inſcription, PATRI PATRIAE. The colour was yellow, with red or purple ſpots or ſtreaks.

[1] The inhabitants of *Jamaica* expect an earthquake every year; and ſome of them think they follow their great rains. *Sir Hans Sloane's Introd. to the Hiſt.* of *Jamaica*, p. 44. *Phil. Tranſ.* N° 209. p. 77. *Plin. Hiſt. Nat.* l. ii. cap. 80. takes notice of the ſame thing.

[2] *Plin. Nat. Hiſt.* l. v. c. 3. *Solinus Polyhiſt.* c. 26.

Sola

Sola nitet flavis Nomadum *deciſa metallis*
Purpura.

Pap. Statius, De Baln. Etr. 369.

Errors, in accounts of this kind, might well be made from *lapis* and *marmor* being indifferently uſed for each other.

The wells (except in *Wadreag* and ſome other parts of the *Sahara*) are rarely of any great depth; and, in digging them, I often obſerved, that after the ſoil was removed, they paſſed through ſome layers of gravel, and ſometimes, though rarely, of clay, till they arrived at a ſoft fleaky ſtone, the ſure indication of water. In ſeveral places near *Algiers* and *Bona*, this ſort of ſtone lies immediately upon the ſurface, and is frequently very beautifully gilded all over with gold-like *micæ*, or *ſpangles*; as the *ſparry matter*, which fills up the fiſſures, glitters with thoſe that imitate ſilver. I never ſaw, neither could learn, that *agates*, or ſtones of the like beauty, were natives of this country. Even the common flint ſtone, which moſt other nations have in plenty, is ſo rarely found, in ſome parts of *Barbary* at leaſt, that our merchant veſſels, that took in a quantity of them in the *Downs*, for ballaſt, diſpoſed of them at *Algiers* for ſeven ſhillings the quintal.

The layers of gravel, clay, fleaky ſtone, gold and ſilver-like ſpangles, &c.

Foſſils, or ſuch *figured ſtones* as are owing to the *deluge*, will be taken notice of in a catalogue by themſelves[z]. If we begin then with the deſcription of the *ſelenites*, we may obſerve, that it will ſometimes ſpread itſelf over whole acres of the woody and mountainous diſtrict. A tranſparent, ſtriated, yellow, and ſometimes fleſh-coloured *talk* or *gypſum*, lies often expanded, in thin cakes, over ſome rocky parts of the *Sahara*. A few cryſtal-like *irides* are found in the mountains of *Bou-jeiah*; as a plenty of dark-coloured double-coned *cryſtals* diſcover themſelves upon thoſe of *Ellou-leejah*. Theſe, with a variety of *cawk* and figured *ſpars*, are the neareſt approaches, which the mineral juices of this climate make, towards the *topaz* and the *diamond*.

The ſelenites, talk and gypſum. Irides. Double-coned cryſtals. Spars.

Beſides the common mould or ſoil, that has been already treated of, there are two or three ſorts of pipe and potters *clay*; the former of which generally burns red. *Cimolia* likewiſe, or *fullers earth*, is dug in great abundance, as is alſo the *ſteatites*, or *ſoap-earth*; which is in great eſteem and ſervice in their *bagnios*, for waſhing and ſoftening the ſkin. *Steinomarga* or *lac lunæ*, which the *Arabs* ſometimes uſe as a *ſtyptic*, lies uſually, in the *Sahara*, in the ſutures of the rocks; whilſt a coarſe ſort both of *umbre* and *ochre*, with a hard *ſpecies* of *almagra* or *Spaniſh bole*, more frequently occurs in the *Tell*.

Pipe and potters clay. Fullers earth. Soap earth. Lac lunæ. Umbre, ochre, almagra, &c.

[z] See this catalogue in the *Collectanea*.

The minerals. The *minerals* that I have diſcovered, are ſtill fewer in number than the *earths*; among which we may reckon a few *ſpecies* of *talk*, and the gold and ſilver-like *micæ*, above-mentioned. Some of the latter are found in great quantities: and when they occur without any mixture or alloy of *talky* or *ſelenitical* ſubſtance, they are uſed, by the *hojias* or *writers* of this country, inſtead of ſand, for the abſorbing of ink upon paper. In pounding *alabaſter* or *gypſum*, we often meet with ſmall gold-like *nodules*, not unlike the *regular mathematical bodies:* but the gold and ſilver-like *marcaſites* or *pyrites* of *Ellou-leejah*, *Medea*, and ſome other places, are in no regular form; being ſometimes globular; ſometimes in the ſhape of the meſentery, kidney, and ſuch like figures, as they uſually aſſume in other places. I have a good *ſpecimen* of the *nigrica fabrilis*, or *black lead*, which was taken up under the walls of *Gibraltar*, and ſuppoſed to have been brought thither, by the current, from the coaſt of *Barbary*.

Talk.

Micæ.

Pyrites.

Black lead.

The ores *and* metals. *Lead* and *iron* are the only *metals* that have been hitherto diſcovered. The latter is white and good, though in no great quantity; being chiefly dug and forged by the *Kabyles* of the mountainous diſtricts of *Bou-jeiah*; and from thence is brought, in ſhort bars, to the markets of that place, and *Algiers*. They have a great plenty of the ore upon the mountains called *Dwee* and *Zikkar*, near *Miliana*; the latter of which is rich and ponderous, with a mixture ſometimes of *cinnabar*; though no works have been carried on, as far as I could learn, at either of thoſe places. The *lead mines* at *Jibbel Riſ-ſaſs*, at *Wannaſhreeſe*, and among the *Beni Bootaleb*, near the *Caſſir Atture*, are all of them very rich; and, provided they were under a better regulation, would produce an infinitely greater quantity of *ore*, as well as *metal*. The method of refining, is by putting layers of wood and ore alternately upon each other; and then ſetting fire to the pile; they frequently extract eighty pounds weight of pure *metal* from one quintal of the *ore*.

Lead.

No copper *mines hitherto diſcovered.* The *ſilver* and *copper mines* of the *Tingitanians* are looked upon with an envious eye by the *Algerines:* though poſſibly their own mountains, by further ſearches and experiments, would afford the ſame. About thirty years ago, the *deys* of *Algiers* were encouraged, by ſome *Spaniſh renegadoes*, to ſearch for *ſilver-ore* in the mountains of *Fernan*, near *Medea*. They would probably have ſucceeded better in trying for copper; as they have here, as well as at *Tmolga*, not far to the weſtward, ſeveral large *ſtrata* of ponderous ſtones, diverſified with green efflorescences. One of the *ſpecimens*, that I brought with me from thence, ſeems alſo to ſhoot into a variety of tin grains. But as none of theſe ores (if they be really ſuch) have been put to the teſt, a ſmall ſhare only of ſuch riches, as may be called ſubterraneous, can

Some copper-like ſtones at mount Fernan.

be

be claimed by theſe *regencies*. For the ſtory, which they are pleaſed to tell, of *Mahomet Bey's plowſhares*, is applicable enough to this branch of the *Natural Hiſtory* that I am now explaining. This prince (whom I have had occaſion to mention in the *kingdom of Tunis)* had the miſfortune to be dethroned by his ſubjects; but having the reputation of being acquainted with the *kymia*, (as they call the *philoſophers ſtone) Ibrahim Hojiah*, then *dey* of *Algiers*, engaged to reſtore him to his former dignity, upon promiſe of being let into the ſecret. The conditions were accordingly accepted, and *Mahomet* was reſtored; who, to fulfil his part of the covenant, forthwith ſent the *dey* of *Algiers*, with no ſmall pomp and ceremony, a number of *mattocks* and *plowſhares*; thereby emblematically inſtructing him, that the wealth of *his kingdom* was to ariſe from a diligent attendance upon *agriculture and huſbandry*; and that the ſecret of the *philoſophers ſtone*, which he had promiſed to make him acquainted with, was nothing more than THE ART OF CONVERTING A GOOD CROP OF CORN INTO GOLD.

A good crop, the philoſophers ſtone of this country.

SECT. VI.

Of Ras Sem, *or the petrified village in the* Cyrenaica.

I ſhall conclude this branch of the *Natural Hiſtory* of *Barbary* with ſome remarks upon the pretended petrified city at *Ras Sem*, in the *province* of *Darha*, in the kingdom of *Tripoly*. This place then, which lies ſix days journey to the S. of *Bingaze*, the ancient *Berenice*, in the greater *Syrtis*, has been occaſionally taken notice of in the former edition, at *p.* 383. *note* 2; where it was obſerved, " that nothing " was to be ſeen there, beſides ſome petrifications, as might well be " accounted for from the deluge: which likewiſe had been already " diſcovered in other parts of the world." In treating likewiſe of the violent heat which attends the deſerts of *Libya* and *Arabia*, I took notice, *(p.* 379. *note* 1.) that, at *Saibah*, a few days journey beyond *Ras Sem*, towards *Egypt*, " there is a whole *caravan*, conſiſting of men, " aſſes, and camels, which, from time immemorial, has been pre- " ſerved at that place. The greateſt part of theſe bodies ſtill conti- " nue perfect and intire, from the heat of the ſun and dryneſs of the " climate: and, the tradition is, that they were all of them originally " ſurpriſed, ſuffocated and dried up, by the hot ſcorching winds, " that ſometimes frequent theſe deſerts."

The *Arabs*, who are as little converſant in geography and natural hiſtory, as they are artful and ingenious enough in fable and romance, had here a very favourable and lucky opportunity, by jumbling and con-

The Arabs the inventors of this ſtory.

connecting together the petrifications of *Ras Sem*, with theſe preſerved bodies at *Saibah*, to project and invent the plan of the *petrified city*, in all the wild and extravagant dreſs, wherein it is commonly deſcribed. This, I believe, is the true matter of fact; and all that may be depended upon in this ſtory.

The account given of it by Caſſem Aga.

It was however a ſubject, much inquired into, whilſt *Caſſem Aga*, the *Tripoly* ambaſſador, reſided lately at *London*. He reported[3] from a thouſand perſons, as he ſaid, and particularly from a friend of his of great veracity, who had been upon the ſpot, that "this ſcene of "petrifications conſiſted of a large town, in a circular figure[4], "which had ſeveral ſtreets, ſhops, and a magnificent caſtle belonging "to it.—That this friend of his ſaw there different ſorts of trees, "but moſtly the olive and the palm; all of them turned into a blue-"iſh or cinder-coloured ſtone.—That there were men alſo to be "ſeen in different poſtures and attitudes; ſome of them exerciſing "their trades and occupations; others holding ſtuffs, others bread, "*&c.* in their hands.—The women likewiſe, were ſome of them "giving ſuck to their children; others were ſitting at their kneading "troughs, *&c.*—That, in entering the caſtle, there was a man "lying upon a magnificent bed of ſtone, with the guards ſtanding "at the doors, armed with pikes and ſpears.—That he ſaw diffe-"rent ſorts of animals, ſuch as camels, oxen, aſſes, horſes, ſheep, and "birds (nay the very dogs, cats, and mice, are enumerated in "other accounts;) all of them converted into ſtone, and of the above-"mentioned colour. In one of theſe hiſtories, ſome of theſe bodies "are ſaid to want their heads, others a leg or an arm; and ſo far "agree with the *caravan* of preſerved (not petrified) bodies above "recited. It is further related, that ſeveral pieces of petrified money[5] "had been brought from thence; ſome of which were of the big-"neſs of an *Engliſh* ſhilling, charged with a horſe's head on one ſide,

[3] This account, with a great many more, relating to the ſame ſubject, which will be afterwards taken notice of and examined, were collected and communicated to me by our very worthy preſident of the Royal Society, *Martin Folkes*, Eſq. LL. D.

[4] The very learned antiquarian, Dr. *Stukely*, in an ingenious letter which he wrote to me (174.) upon this ſubject, ſuppoſes *Ras Sem* to be a *patriarchal prophylactis*, or *ſerpentine* temple, like *Stone Henge*, and other the like ſtructures of the *Druids*. But we have no credible account, nor indeed any account at all, that there is any ſuch like circular buildings at *Ras Sem*. Neither can Sir *Chriſtopher Wren's* or Sir *Iſaac Newton's* opinion, *viz.* that *Ras Sem* came from *Africa*, be better ſupported. It is much, if there were any models of this kind, that I ſhould not have met with, or at leaſt heard of one or other of them, in thoſe many places and diſtricts of *Africa*, which I have been acquainted with.

[5] Though coins, by lying in ſand, earth, *&c.* where ſalt is concreted, may acquire ſuch an appearance, by ſome of the ſandy, *&c.* particles ſticking and adhering to them;

"and

"and with ſome unknown characters on the other." This is the ſubſtance of that variety of reports which have been given and related of this place, at different times, and by different perſons[6].

An account of the like tranſformation in Tartary.

Several ſtories and relations, of the like transformation of living creatnres into ſtone, are collected by *Aldrovandus*, in his *Muſeum Metallicum*, (p. 823.) where, amongſt others, he gives us the hiſtory, and at the ſame time, a groupe of figures, conſiſting of men, ſheep, and camels converted into ſtone. As *Tartary* is reported to be the ſcene of this transformation, it is very probable, that this is the ſame ſtory which is recorded by *Anthony Jenkinſon*[7], in his map of *Tartary*, preſerved by *Ortelius*. *Kircher*[8] alſo acquaints us, that he had learned, from ſome geographers, of a whole *horde* of men and cattle being turned into ſtone: where, by uſing the word *horde*, we may ſuſpect the people to have been *Tartars*; and that the geographers therefore were no other than *A. Jenkinſon* and *Ortelius*. This then appears to be one and the ſame ſtory.

as likewiſe in Peru.

Another ſtrange account, of a pretended number of men, women, and children, being converted into ſtone, is related by *De la Vega*, in his hiſtory of the *Yncas* of *Peru*[9]. But both this and the former are of a modern date, and mere trifles too, in compariſon with what is related of the wonderful effects, that were occaſioned by the *Gorgon's* head or *Meduſa*. Neither are the petrifications themſelves, either in *Ras Sem*, *Tartary*, or *Peru*, ſo copious and extenſive, as what were occaſioned by her influence. For here they were viſible over a whole country;

The Gorgon's head.

yet the coins here mentioned, notwithſtanding ſuch an alteration in their ſuperficies, could be no other than what have been deſcribed at p. 59, 60. of my *Excerpta*. In Mr. *Fitton's* letter to Sir *Kenelm Digby*, preſerved in the *Mercurius Politicus*, N° 334. the petrified pieces of money are ſaid to be *Venetian zecchines*.

[6] Vid. *Merc. Politicus*, ut ſupra. *S. Clarke's* geographical deſcription of all the known kingdoms of the world, 3*d edit.* p. 193. The adventures of *T. S.* an *Engliſh* merchant, taken priſoner at *Algiers*, *Lond.* 1670. p. 140. Capt. *Uring's travels*, vol. i. p. 280. Conſul *Baker's* relation, publiſhed amongſt Dr. *Hooke's* papers by Mr. *Derham*, p. 386. Mr. *Boyle*, in his general heads for the natural hiſtory of a country, *qu.* 24. *Turkiſh Spy*, vol. v. p. 158. *Martini a Baumgarten peregrinatio*, &c. *Norib.* 1594. And in *Churchil's collection of travels*, vol. i. p. 406. *Ath. Kircheri Mundus ſubterraneus*, vol. ii. p. 53.

[7] In one of the compartments of this map, are the following words: *Hæc ſaxa hominum, jumentorum, camelorum, pecorumque, cæterarumque rerum formas referentia, horda populi greges poſcentis armentaque fuit; quæ ſtupenda quadam metamorphoſi repente in ſaxa riguit, priore forma nulla in parte imminuta. Evenit hoc prodigium annis circiter* CCC. *retro elapſis.*

[8] *Mund. ſubter.* ut ſupra.

[9] *Commentaire Royal, ou Hiſtoire Des Yncas du Perou*, par *Garcilaſſo de la Vega*, l. iii. c. i. p. 287.

paſſimque

passimque per agros
Perque vias vidisse hominum simulachra, ferarumque,
In silicem ex ipsâ visâ conversa Medusâ.
Ovid. Met. lib. iii. ℣ 718.

Some accounts of single persons being converted into stone, &c.

So much then, concerning the more remarkable stories that are recorded, by modern and ancient authors, of whole *groupes* of animals being converted into stone. Instances of single persons being thus metamorphosed are more numerous. Thus we read of *Lot's* wife, becoming a pillar of salt, in the sacred history; and of *Niobe*, and others being turned into stone, in the prophane. *Aristotle*, as he is quoted by *Lassels*[1], speaks of some men, who were found petrified, in a cave, near *Pergamus*: and *Kircher*[2] tells us, that the whole skeleton of a man, converted into stone, was preserved in the *Ludovisian* palace at *Rome*. This is probably the same, that still continues to be shewn among the curiosities of that city; and which I myself have seen.

Of the human bones, in the caves of Gibraltar.

Among the multiplicity of bones, that have been found in the caves of *Gibraltar*, (which are supposed to have been of such persons, as hid themselves, upon the invasion of the *Moors*, and afterwards perished with hunger) I have seen several, that had received an additional weight and substance, by being pervaded, as we may imagine, by some *lapidescent* vapour, that is constantly circulating in those caves, which are no less cold and chill, than they are remarkably damp and moist. Others were, not only become heavier, but incrustated over, in some parts, with a *stalagmatical* or sparry substance, that is perpetually dropping from the tops of those caves.

Some skeletons, &c. covered over with a stalagmatical *substance.*

The latter is the case of the skeleton at *Rome*; the bones of which are not properly petrified, but covered *(cortice lapideo*, in *Kircher's* phrase) with *a coat of stone*. It is probable also, from the like situation, and the concurrence of the like circumstances, that the petrified bodies in the cave near *Pergamus*, were not properly petrified, but inclosed only, in such like sparry or *stalagmatical* incrustations. And I am apt to suspect, that the like pretended petrification of boats, masts, oars, *&c.* in the *Bahar bel oma*, or *Sea without water*[3], betwixt *Egypt* and *Ras Sem*, is nothing more than a nitrous incrustation (for these deserts are full of that salt;) in the same manner, we see stones and potsherds crusted over and crystalized, by arresting and condensing the saline vapour that arises from the *Sulfatara*, near *Naples*. There is nothing

[1] Vid. *Lassel's voyage into Italy*, *Par.* 1670. 12mo, p. 179. in villa *Ludovisiana*.
[2] Ut supra.
[3] Vid. *Memoires des Missions de la compagnie de Jesus dans le Levant*, tom. ii. p. 73.

thing extraordinary therefore in theſe *phænomena:* inaſmuch as it may be eaſily accounted for, why theſe animal, or, indeed, any other bodies, that lie under, or are more immediately expoſed to, the influence of a *lapideſcent* vapour or fluid, or, in the latter caſe, of a ſaline one, ſhould be ſubject to, and ſuſceptible of, theſe changes and alterations.

Bodies, expoſed to the air, not capable of being petrified.

The difficulty will be, to account for ſuch bodies, as are pretended to lie expoſed, or to ſtand upright, in the open air, without having been ever lodged in any proper beds; or ſheltered and influenced by caves and grottos. Here, as it cannot well be imagined, that any *lapideſcent* vapour or fluid ſhould have power to exert itſelf, or indeed be capable of being any way admitted and received into the pores of theſe, whether animal or other bodies; ſo neither could the bodies themſelves acquire thereby, in their reſpective textures and compoſitions, any additional augmentation, or permanent alteration whatſoever. Such a ſituation, (except in the hot ſandy deſerts, where the ſun uſually dries up theſe bodies,) would rather occaſion them immediately to diſſolve or putrefy, than to be converted into ſtone.

The pretended inſtances of ſuch petrified bodies confuted.

Let us examine then the hiſtories of thoſe bodies, that are pretended to lie, in this manner, in a variety of poſtures and attitudes, open and expoſed; ſuch, as are related of *Lot's* wife; of the *horde* in *Tartary*; of the *groupes* in *Peru*, and at *Ras Sem*; of *Niobe*, and the extraordinary petrifications occaſioned by the *Gorgon's* head. Now the two laſt of theſe accounts have always been looked upon as fabulous [4] and allegorical; and, as ſuch, will make nothing at all in proof of the real exiſtence of ſuch tranſmutation. Nay, provided the firſt [5] is to be underſtood, according to the literal ſenſe, for a real tranſmutation; yet it will, by no means, ſupport the credibility of the other alledged inſtances, at *Tartary*, *Peru*, and *Ras Sem*; unleſs their hiſtories were well atteſted, and we had the like infallible proof and teſtimony of their being miraculous.

The ſtories of Niobe *and the* Gorgon's *head allegorical.*

That of Lot's *wife, either allegorical or miraculous.*

The Tartarian groupe *accounted for from differently figured ſtones.*

With regard then to the *Tartarian groupe* (the ſole invention, as it appears to have been, of *Anthony Jenkinſon*) a number of independent rocks, in different heights, and of various colours and figures; or elſe the conſtituent ſtones of ſome ancient, civil or religious incloſure,

4 Vid. *Nat. com.* l. vi. cap. 13. & l. vii. cap. 11, 12.

5 *Vatablus*, *Bodinus*, *&c.* take this in a metaphorical ſenſe; *viz.* for a perpetual ſilence in her mourning; and that ſhe became not *a pillar of ſalt*, but *as a pillar of ſalt*. In the ſame manner it is obſerved of *Nabal*, that after *Abigail* had made him ſenſible of the fault he had committed, 1 *Sam.* xxv. 37. *his heart died within him, and he became as a ſtone.* Thus again the particle *as* is to be ſupplied, where *Dan* is ſaid to be *a lion's whelp*, Deut. xxxiii. 22. *Iſſachar* to be *a ſtrong aſs*, Gen. xlix. 14. *Iſhmael ſhall be a wild aſs's man*, Gen. xvi. 12. and in a variety of other inſtances.

by

by being viewed at a diſtance, without a nearer and ſtricter examination; theſe, I preſume, might give occaſion for ſuch a report at firſt; which few perſons afterwards, could have, or would take an opportunity, either to examine or contradict. We find, much nearer home, the like romantic interpretation to have been put upon the rocks in *Marlborough downs*; which, from ſome ſmall reſemblance they bear to a flock of ſheep, are called, to this day, the *Marlborough weathers*. In like manner, the *Rollrich* ſtones in *Oxfordſhire*[6]; the *Weddings* in *Somerſetſhire*, and the *Hurlers* in *Cornwall*, were once imagined to be ſo many men converted into ſtone. A tradition of the ſame kind ſeems to have attended other remarkable ſtones, of the ſame nature[7], near *Salkeld*, in *Cumberland*. The petrified camp, which I have deſcribed, at *Hamam Meſkouteen* in *Numidia*, is another inſtance of the fallacy and erroneous reports of common fame. Here the *Arabs* (who, like the *Cretans*, *are always liars*, or, to uſe a more favourable expreſſion, great maſters of invention) have frequently aſſured me, with the moſt ſolemn aſſeverations, that they had ſeen, not only a number of tents, but cattle alſo of different kinds, converted into ſtone. This encouraged me, whilſt I was chaplain at *Algiers*, to undertake a very tedious and dangerous journey; but when I arrived at the place, I found theſe reports were all of them idle and fictitious, without the leaſt foundation; unleſs in the wild and extravagant brains of the *Arabs*. For, with theſe and ſuch like credulous perſons, the ſmalleſt ſimilitude or reſemblance will ſometimes occaſion, in their fertile imaginations, ſuch indulgence and liberty of invention, as to give immediate birth to ſome ſtrange report and marvellous narration.

The rocks upon Marlborough downs, *called* weathers.

Rollrich ſtones *ſuppoſed to have been men, converted into ſtone.*

The petrified camp, at Hamam Meſkouteen, in Numidia.

The Arabs *great maſters of invention.*

Little need be ſaid of the *Peruvian groupe*, neither doth it require any critical examination. For, as all the figures concerned therein, are of the human ſpecies, we may very reaſonably conclude them to have been artificial; and therefore intended, like the more numerous ones at *Elora*, in *Perſia*[8], for ſo many *pagods*. The many ſtructures, that are deſcribed to be near them, were, no doubt, the temples, or ſome way or other deſigned for the worſhip, or ſhelter of theſe *pagods*.

The Peruvian groupe *is a collection of* pagods.

[6] Vaſtos lapides in orbem diſpoſitos, quos *Rollrich ſtones* vulgus appellitat, hominesque olim fuiſſe, qui in ſaxa ſtupenda metamorphoſi riguerunt, ſomniat. *Cambd. Britan.* in *Oxfordſhire*.

[7] Theſe are placed in a circle, 77 in number, ten foot high; with a ſingle one before them, 15 foot high. This the common people call *Long Meg*, and the reſt, *her daughters*. *Magn. Britan.* vol. i. p. 381.

[8] Vid. *Thevenot's travels*, l. iii. chap. 44.

Neither will the reports, concerning the petrified bodies at *Ras Sem*, deſerve any greater regard, or credibility; as will appear from the following relation. About forty years ago, when Mr. *Le Maire* was the *French conſul* at *Tripoly*, he made great inquiries, by order of the *French* court, into the truth of this report: and amongſt other very curious accounts, relating to the ſame place, he told me a remarkable circumſtance, to the great diſcredit and even confutation of all that had been ſo poſitively advanced, with regard to the petrified bodies of men, children, and other animals. *No animals petrified at* Ras Sem.

Some of the *Janizaries* (who, in collecting the tribute, travel over, every year, one part or other of this diſtrict of *Ras Sem*,) promiſed him, that, as an adult perſon would be too heavy and cumberſome, they would undertake, for a certain number of dollars, to bring him from thence, the body of a little child. After a great many pretended difficulties, delays, and diſappointments, they produced, at length, a little *Cupid*, which they had found, as he learned afterwards, among the ruins of *Leptis*: and, to conceal the deceit, they broke off the quiver, and ſome other of the diſtinguiſhing characteriſtics of that deity. However, he paid them for it, according to promiſe, 1000 *dollars*. which is about 150 *pounds ſterling* of our money, as a reward for their faithful ſervice and hazardous undertaking: having run the riſque, as they pretended, of being ſtrangled, if they ſhould have been diſcovered, in thus delivering up to an infidel one of thoſe unfortunate *Mahometans*, as they take them originally to have been. *A ſtory of a little* Cupid, *being brought, for a petrified child, to the conſul of* Tripoly.

But, notwithſtanding this cheat and impoſition had made the *conſul* deſiſt, from ſearching after the petrified bodies of men and other animals; yet there was one matter of fact, as he told me, which ſtill very ſtrangely embarraſſed him, and even ſtrongly engaged him in favour of the current report and tradition. This was, ſome little loaves of bread, as he called them, which had been brought to him from that place. His reaſoning indeed thereupon, provided the pretended matter of fact had been clear and evident, was juſt and ſatisfactory; for where we find loaves of bread, there, as he urged, ſome perſons muſt have been employed in making them, as well as others, for whom they were prepared. One of theſe loaves, he had, among other petrifications [9], very fortunately brought with him to *Kairo*; where I ſaw *The pretended loaves of bread are* echinites.

9 The fragment of a petrified *palm tree*, which is figured in plate FOSSILIA, among the COLLECTANEA, was given me by this gentleman. It was broke off from a great lump; and agrees exactly, with the wood of the living *palm tree*, in the order and quality of the fibres; which do not run ſtraight and parallel, as in other trees; but are for the moſt part oblique, or diverging from one another in an angle of about 10 degrees. It ſtrikes fire like a flint; and ſo does a fragment of the petrified wood, which I found upon the iſthmus betwixt *Kairo* and *Suez*.

it, and found it to be an *echinites* of the *diſcoid* kind; of the ſame faſhion with one I had lately found and brought with me from the deſerts of *Marah*[1]; the figure of which, I likewiſe ſhewed him, in the *Lithophylacium Britannicum*[2]. We may therefore reaſonably conclude, that there is nothing to be found at *Ras Sem*, (inaſmuch as nothing elſe has been brought from thence,) unleſs it be the trunks of trees, *echinites*, and ſuch petrifications, as have been diſcovered at other places. Becauſe cats and mice, and birds, (had there been really any ſuch things,) were as portable, and might have been as eaſily conveyed and brought away, as branches of the *palm trees*, or *echinites*.

Trunks and branches of trees, with the echini, *and their prickles, are the only petrifications at* Ras Sem.

M. *Lemaire's* inquiries, which, we find, were ſupported by the promiſe and performance of great rewards, have brought nothing further to light. He could never learn, (after ſending a number of perſons, expreſſly and at a great expence, to make diſcoveries and bring along with them what curioſities ſoever they met with) that any traces of walls, or buildings, or animals, or utenſils, were ever to be ſeen within the verge of theſe pretended petrifications. The like account I had from a *Sicilian renegado*, who was the *janizary* that attended me, whilſt I was in *Egypt*: and as, in his earlier years, he had been a ſoldier of *Tripoly*, he aſſured me, that he had been ſeveral times at *Ras Sem*. This I had confirmed again, in my return from the *Levant*, by the interpreter[3] of the *Britiſh factory* at *Tunis*; who was likewiſe a *Sicilian renegado*, and being the *libertus* or *freedman* of the *baſhaw* of *Tripoly*, was preferred by him to be the *bey* or *vice-roy* of the province of *Darna*[4]; where *Ras Sem* was immediately under his juriſdiction. His account was likewiſe the ſame; neither had he ever ſeen, in his frequent journies over this diſtrict, (though he had been formerly told to the contrary,) any other petrifications, than what are above-mentioned. So that the *petrified city*, with its walls, caſtles, ſtreets, ſhops, cattle, inhabitants, and their utenſils, (which have, at one time or other, ſo much taken up the attention of the curious,) were all of them, at firſt, the mere fables and inventions of the *Arabs*; and

This is confirmed by various accounts, that were given to the author, concerning this place.

[1] See the figure of it in the plate FOSSILIA, among the COLLECTANEA.

[2] This is called *Echinites clypeatus ſive diſcum referens, pentaphylloides*, Lith. Brit. claſſ. vi. tab. 13. N° 971.

[3] The account mentioned above, (in the former edit. p. 379. note 1.) of a whole *caravan* being ſurpriſed and ſuffocated by a hot wind, was given me by this perſon; who, upon his diſgrace with the *baſhaw*, fled into *Egypt*; and taking an uncommon road, by *Saibah*, for fear of being purſued, fell in there with the ſcene of preſerved bodies.

[4] Δάρνις or Δάρνη. Vid. *Valeſ.* not. in *Ammian. Marcell.* l. xxii. c. 16.

afterwards

afterwards propagated by ſuch perſons, who, like the *Tripoly ambaſſador* and his friend above-mentioned, were credulous enough to believe them.

Some pools of heavy water in this diſtrict.

However, there is one remarkable circumſtance, relating to *Ras Sem*, that deſerves well to be recorded. When the winds have blown away the billows of ſand, which frequently cover and conceal theſe petrifications, (for they are not always viſible upon that account;) they diſcover, in ſome of the lower and more depreſſed places of this diſtrict, ſeveral little pools of water; which is uſually of ſo heavy and ponderous a nature, that, upon drinking it, it paſſes through the body like *quickſilver*. This, perhaps, may be that *petrifying fluid*, which has all along contributed to the converſion of the *palm trees*, and the *echini*, above-mentioned, into ſtone. For the formation, not only of theſe, but of petrifications of all kinds, may be intirely owing to their having firſt of all, lodged in a bed of loam, clay, ſand, or ſome other proper *nidus* or *matrix*; and afterwards gradually acted upon and pervaded by ſuch a *petrifying fluid*, as we may ſuppoſe this to be.

This heavy water may be the petrifying fluid.

Ras Sem *not the* Gorgoniæ domus. *Becauſe*

Some curious perſons have imagined, that, as the *Gorgon's* head, with the venomous ſnakes hanging from it, bears a near reſemblance to *Ras Sem*, (or *the head of poiſon*, as it is interpreted) we are therefore to look for the *Gorgoniæ domus* at this place. But, beſides the allegorical conſtruction that has, from the earlieſt antiquity, been put upon the *Gorgon's* head; and a much later and more ingenious conjecture [5], that we are to underſtand by it, the *wheel* or the *roller* only, which, by preſſing the *olives*, *converts them into* (or leaves nothing behind it but their) *ſtones*; I ſay, beſides theſe, there are two other objections, that *Ras Sem* and the *Gorgoniæ domus* cannot be the ſame.

the hiſtory of Ras Sem *is of no antiquity.*

1. The firſt is, that both the name and the deſcription of *Ras Sem* are of no antiquity; neither do we find the leaſt tradition concerning it, before the laſt or the preceding century [6]. The *claſſic* authors,

[5] Mr. *Pluche*, in his *Hiſtoire du Ciel*, vol. i. p. 186, 187. derives the name of *Meduſa*, from דוש *Duſh*, *triturare*, *to tread out*; and that *Meduſa* (מדושה, *Iſ.* xxi. 10.) therefore is *the preſſing out*. *Gorgon*, in like manner, he makes to be the ſame with *Galgal* גלגל; and that the *Arabs* call *Meduſa*, as delineated upon the ſphere or celeſtial globe, *Algol*, i. e. *the wheel*.

[6] As far as I can inform myſelf, the firſt relation we have of the *petrified city*, is given by *Martin a Baumgarten*, in his *Peregrinatio*, publiſhed in 1594, though he began his *travels* in 1507, and conſequently muſt have collected his materials a number of years before they were made publick. He was informed, as he tells us, that in the road from *Tripoly* (of *Syria*) to *Mecca*, there was a city, whoſe inhabitants, cattle, and utenſils, were turned into ſtone. But if this *petrified city* be the ſame with *Ras Sem*, then *Baumgarten* muſt have miſtaken *Tripoly* in *Syria*, for *Tripoly* in *Barbary*; whereby the

whether poets, geographers, or hiſtorians, have not, in the ſeveral accounts of the *Cyrenaica*, and the adjacent provinces, taken the leaſt notice, as far as I can learn, of this ſcene of petrifications. Such a tale, whether real or imaginary, would, in a particular manner, have been highly acceptable, as it was intirely ſuitable to the poetical invention of *Lucan*; who appears to have been well acquainted with the *natural hiſtory* of this part of *Libya*. It is very probable, therefore, from the very nature and quality of this portion of the *Cyrenaica*, whoſe ſurface is perpetually changing, by the ſhifting of the ſands; that formerly either the *palm trees*[7] and the *echini* were not ſufficiently laid open by the winds, or, that the deſcription of them, which can ſcarce be imagined, was not thought worthy to be tranſmitted to poſterity.

The Gorgoniæ domus *were not ſituated in this part of* Libya, *but near the* Atlantic *ocean.*

2. It may be objected, in the ſecond place, that the country of the *Gorgons* was ſo far from being ſituated where we find *Ras Sem*, in or adjacent to the *Cyrenaica*; that we are to look for it in or beyond the moſt weſtern and extreme parts of *Libya*. For *Lucan*[8] deſcribes it to

ſtories will accord. Yet, if they were the ſame ſtory, it is much, that ſo ſtrange and marvellous, as it was accounted to have been at that time, *i. e.* in the beginning of the *ſixteenth century*, it ſhould have lain dormant till about the middle of the laſt; when it was talked of as a miracle and matter of fact that had lately happened. This we learn from Mr. *Fitton's* letter to Sir *Kenelm Digby*, mentioned above; from *Kircher's Mundus ſubterr.* ut ſupra; from *S. Clarke's deſcription, &c.*

[7] We have juſt ſuch another ſcene (though more diſperſed) of petrified branches and trunks of trees, of various ſizes (and probably of *echini* and their prickles too, if they were carefully looked after) upon the *iſthmus* betwixt *Cairo* and *Suez*. Theſe too, no leſs than thoſe at *Ras Sem*, were, no doubt, originally covered with ſand, their proper *matrix*: which the winds, in proceſs of time, have blown away and removed; filling up, in all probability, by theſe depredations from the ſurface, the *Amnis Trajanus*, the *Foſſa regum*, (or channel that was cut betwixt the *Nile* and the *Red Sea*,) and no ſmall part of the northern extremity of the *Red Sea* itſelf. The learned author of the *Deſcription of the Eaſt, &c.* vol. i. p. 131. has given us the following account of theſe petrifications; *viz. I do not know*, ſays he, *whether it may be looked upon as a probable conjecture, that the people travelling in theſe parts, and carrying ſome wood with them for their uſe, might leave it behind when they approached towards the great city, and that having been covered with ſand, it might petrify; and the ſand be afterwards blown away: though indeed I ſaw one piece*, (and I may add, there are a great number,) *that ſeemed to have been a large body of a tree.*

[8] *Finibus extremis Libyes, ubi fervida tellus*
Accipit oceanum demiſſo ſole calentem,
Squallebant late Phorcynidos arva Meduſæ,
Non nemorum protecta coma, non mollia ſulco,
Sed dominæ vultu conſpectis aſpera ſaxis.

Luc. l. ix. 624, &c.

lie

lie under *mount Atlas*, upon the ocean called therefrom *Atlantic*; and *Pliny* [9], as he is authoriſed by *Xenophon Lampſacenus*, places the *Gorgons* among the *iſlands* (of *Cape Verd* as they are now called) *two days ſail from the continent*. How great affinity ſoever may be then in their names, (for names do ſometimes very ſtrangely agree, though the leaſt reaſon cannot be aſſigned for ſuch agreement,) it appears, that the circumſtances of the ſtories themſelves, (it is of no moment, whether they be real or allegorical,) are different; and conſequently, that neither can the *Gorgoniæ domus* and *Ras Sem* be the ſame.

9 *Plin. Nat. Hiſt.* l. vi. cap. 31.

CHAP. II.

Of the animals, viz.

SECT. I.

Of the tame and wild quadrupeds.

AS the principal riches of the *Bedoween Arabs*, no leſs than of the eaſtern patriarchs [1] and princes of old, continue to be valued according to the number and quality of their cattle, I ſhall begin the *zoology* of theſe countries with the deſcription of ſuch of them as are tame, and conſequently of more general uſe and ſervice to mankind.

The *horſe*, formerly the glory and diſtinguiſhing badge of *Numidia*, has of late years very much degenerated; or rather, the *Arabs* have been diſcouraged from keeping up a fine *breed*, which the *Turkiſh officers* were ſure at one time or another to be the maſters *The horſe.*

1 *And* Abraham *was very rich in cattle*, Gen. xiii. 2. and 5. *And* Lot *alſo which went with* Abraham, *had flocks and herds.* Job's *ſubſtance was ſeven thouſand ſheep, and three thouſand camels, and five hundred yoke of oxen, and five hundred ſhe aſſes*, &c. Job i. 3. and xlii. 12. Familiæ aliquot cum mapalibus pecoribuſque ſuis (ea *pecunia* illis eſt) perſecuti ſunt regem, &c. *Liv.* l. xxix. § 31. De antiquis illuſtriſſimus quiſque paſtor erat, ut oſtendit *Græca* & *Latina* lingua, & veteres poetæ, qui alios vocant πολύαρνας (*Hom.* Il. B. 104. *De Thyeſte*) alios πολυμήλους, alios πολυβότας, qui ipſas pecudes, propter caritatem, *aureas* habuiſſe *pelles* tradiderunt; ut *Argis Atreus*, *Colchide Æeta*, ad cujus arietis pellem profecti regio genere dicuntur *Argonautæ*; ut in *Libya* ad *Heſperidas*, unde *aurea mala*, id eſt, ſecundum antiquam conſuetudinem, capras & oves (quas) *Hercules* ex *Africa* in *Græciam* exportavit. Ea enim ſua voce *Græci* appellarunt μῆλα. *M. Varro*, l. ii. cap. 1. *De re ruſtica.*

of.

of. At preſent therefore the *Tingitanians* and *Egyptians* have juſtly the reputation of preſerving the beſt; which, no longer than a century ago, they had only in common with their neighbours. Now, a valuable and well taught *Barbary horſe* is never to lie down; he is to ſtand ſtill and be quiet, whenever the rider quits him and drops the bridle: he is, beſides, to have a long pace, and to ſtop ſhort, if required, in a full career: the firſt of which qualities ſhews the goodneſs and perfection of the horſe; the proper management of the latter ſhews the dexterity and addreſs of the rider. No other motions are either practiſed or admired in theſe countries; where it is accounted very impolite to trot or to amble. But the *Egyptian horſes* have deſervedly the preference of all others, both for ſize and beauty; the ſmalleſt being uſually ſixteen hands high, and ſhaped (according to their phraſe) *like the antilope*. The uſual price of the beſt *Barbary horſe* is from three to four hundred dollars; *i. e.* from fifty to ſixty or ſeventy pounds of our money: whereas, in the days of *Solomon*, as indeed *ſilver was then nothing accounted of*, a *horſe came out of Egypt for* CL *ſhekels*; which amount to little more than ſeventeen pounds.

The aſs *and the* mule. The *aſs*, the ζῶον ἀήτ|ηλον, and the *mule*, which deſerves the like appellation, are their moſt hardy and uſeful creatures; requiring little or no attendance. The firſt is not ſo generally trained up for the ſaddle at *Algiers* as at *Tunis*; where they are frequently of a much larger ſize; but the *mule* is in general demand at both places, and preferred to the *horſe* for common uſe and fatigue. It is certainly ſurer footed, and vaſtly ſtronger, in proportion to its bulk. I could never learn that the *mule* was prolific; which notion *Pliny*[2], and ſome other authors ſeem to have entertained.

The kumrah. To the *mule* we may join the *kumrah*, as the *Algerines* call a little ſerviceable beaſt of burthen, begot betwixt an *aſs* and a *cow*. That which I ſaw at *Algiers* (where it was not looked upon as a rarity,) was ſingle hoofed like the *aſs*, but diſtinguiſhed from it in having a ſleeker ſkin, with the tail and the head (though without horns) in faſhion of the dam's.

The camel. Yet all theſe ſpecies are vaſtly inferior to the *camel* for labour and fatigue. For this creature travels four[3] or five days without water;

[2] Eſt in annalibus noſtris, peperiſſe ſæpe (mulam); verum prodigii loco habitum. *Theophraſtus* vulgo parere in *Cappadocia* tradit: ſed eſſe id animal ibi ſui generis. *Plin.* l. viii. cap. 44.

[3] Sitim & quatriduo tolerant *(Cameli)*; implenturque, cum bibendi occaſio eſt, & in præteritum & *futurum*, obturbata proculcatione prius aqua: aliter potu non gau-

whilſt half a gallon of beans and barley, or elſe a few balls made of the flower, will nouriſh it for a whole day. *Pliny's* obſervation, of their diſturbing the water with their feet, before they drink it, is very juſt; and it may be further obſerved, that they are a long time in drinking; firſt of all thruſting their heads a great way above their noſtrils into the water, and then making ſeveral ſucceſſive draughts, in the like manner with *pigeons*. In travelling over the deſerts of *Arabia* to *Mount Sinai*, each of our camels carried a burthen of at leaſt ſeven quintals: and what further ſhews the great ſtrength of this animal, a day's journey conſiſted ſometimes of ten, ſometimes of fifteen hours, at the rate of two miles and an half an hour. Theſe extraordinary qualities are, without doubt, ſufficient encouragements for the *Arabs* of all countries, that are not rocky or mountainous, to keep up and multiply the breed.

The maihary, dromas, aſhaary, *or* dromedary.

That *ſpecies* of the *camel-kind*, which is known to us by the name of the *dromas* or *dromedary*, is here called *Maihāry* [4], or *aſhaary* [5]; though it is much rarer in *Barbary* than in *Arabia*. It is chiefly remarkable for its prodigious ſwiftneſs; (the *ſwift dromedarie*, as the prophet calls it, *Jer.* ii. 23.) the *Arabs* affirming, that it will run over as much ground in one day, as one of their beſt horſes will perform in eight or ten; for which reaſon thoſe meſſages, which require haſte, are, in *Gætulia*, and the more ſouthern parts, diſpatched upon dromedaries; as in *Eſth.* viii. 10. The *Shekh*, who conducted us to *Mount Sinai*, rode upon a *camel* of this kind, and would frequently divert us with a token of its great abilities. For he would depart from our *caravan*, *reconnoitre* another juſt in view, and return to us again in leſs than a quarter of an hour. It differs from the common *camel* in being of a finer and rounder ſhape, and in having upon its back a leſſer protuberance. This *ſpecies* (for the former, as rarely deviating from the beaten road, travels with its head at liberty) is governed by a bridle, which being uſually faſtened to a ring, fixed in its noſtrils, may very well illuſtrate that expreſſion (2 *Kings* xix. 28.)

dent. *Plin. Nat. Hiſt.* l. viii. cap. 18. *At the top of the ſecond ventricle (of the* dromedary) *there were ſeveral ſquare holes, which were the orifices of about twenty cavities, made like ſacks placed between the two membranes which compoſe the ſubſtance of this ventricle. The view of theſe ſacks made us think that they might well be the reſervatories where* Pliny *ſays that camels do a long time keep the water, which they do drink in great abundance when they meet with it, to ſupply the wants which they may have thereof in the dry deſerts, where they are uſed to travel.* Memoirs for the natural hiſtory of animals, *&c.* by the academy at *Paris*.

[4] *Aſahah* rapporte que le chameau dit *Almahares*, ou de *Mahrah*, eſt ainſi nommé à cauſe de *Mahrah*, fils de *Hamdan*, fundateur d'une tribu. *Abulf.* de l' *Arabie*.

[5] *Aſhaary* ſignifies *ten*; from being commonly blind ten days after its birth.

of

of *putting a hook in his noſe*, as it is recorded of *Sennacherib*, and may be further applicable to his *ſwift retreat*.

The males of the *camel kind*, from being tame and harmleſs in other ſeaſons, become unruly in the ſpring; the uſual time when they ſollicit the females. Their familiarity is generally in the night, in the ſame manner with creatures of the *cat-kind*, as it has been long ago obſerved by *Ariſtotle* [6], though contradicted by *Pliny* [7]. For the ſheath of the *penis* (in theſe, no leſs than in other animals which reſt a long time together upon their lower belly, and are called *retromingent*) is brought forwards upon theſe occaſions; which, at other times, is thrown backwards for the more convenient diſcharge of the urine. The females are pregnant near a whole year, or from one ſpring to the other; and the young *dromedaries* are blind, like *kittens* or *puppies*, ſeveral days after their birth. Their future good or bad qualities likewiſe are prognoſticated from the length or ſhortneſs of their blindneſs.

The black cattle.

After the *beaſts of burthen*, we are to deſcribe the *black cattle*, which are generally ſmall and ſlender; the fatteſt of them, when brought from the ſtall, rarely weighing above five or ſix quintals. Neither is their milk in proportion to their ſize: for, notwithſtanding the rich herbage of this country from *December* to *July*, a cow rarely gives above a quart of milk at a time; whilſt the butter has neither the ſubſtance nor richneſs of taſte with what our *Engliſh dairies* afford us in the depth of winter. The *Barbary* cows have another imperfection, as they loſe their calves and their milk together. Here the *ſheep* and the *goats* contribute alſo to the *dairies*, particularly in the making of *cheeſe*. Inſtead of *runnet*, eſpecially in the ſummer ſeaſon, they turn the milk with the flowers of the great headed thiſtle, or wild *artichoke*; and putting the *curds* afterwards into ſmall baſkets made with ruſhes, or with the dwarf *palm*, they bind them up cloſe, and preſs them. Theſe *cheeſes* are rarely above two or three pounds in weight, and in ſhape and ſize like our penny loaves; ſuch perhaps as *David* (1 *Sam.* xvii. 18.) carried to the *camp of Saul*. Their method of making *butter* is, by putting the milk or cream into a goat's ſkin turned inſide out; which they ſuſpend from one ſide of the tent to the other, and then preſſing it to and fro in one uniform direction, they quickly occaſion the ſeparation of the unctuous and

Cheeſe made of ſheep *and* goats *milk.*

Butter.

[6] Αἱ δὲ κάμηλοι ὀχεύουσι τὴν θηλείας καθημένης, ὥσπερ καὶ ἡ ἵππος· ὁ δὲ ἄρρην ὀχεύει ἐκ ἀντίπυγα, ἀλλὰ καθάπερ αἱ τὰ ἄλλα τετράποδα. *Ariſt. Hiſt. Animal.* l. v. cap. 2.

[7] *Aliter, ſed male, ſcribit Plinius*, l. x. cap. 63. Coitus (inquit) averſus elephantis, camelis, tigridibus, &c. quibus averſa genitalia. *Idem dicit Solinus*, cap. 40.

wheyey

wheyey parts. A great quantity of butter is made in ſeveral places of theſe kingdoms; which, after it is boiled with ſalt (in order to precipitate the hairs and other naſtineſſes occaſioned in the churning) they put into jars, and preſerve it for uſe. Freſh butter ſoon grows ſour and rancid.

The *goat* is the ſame with that of other countries; but there are two ſpecies of *ſheep*, not known in *Europe:* the one (which is common all over the *Levant*, as well as the kingdom of *Tunis*) is diſtinguiſhed by a broad tail, that ends ſometimes in a point, ſometimes continues broad to the bottom. The fleſh of this *ſpecies* taſtes generally of the wool; neither has it the tender fibres of the ſmaller tailed ſheep. Yet the tail itſelf, which is greatly eſteemed in their *cuſcaſowes* and *pilloes*, conſiſts of a hard ſolid fat, not inferior in taſte to marrow. The other *ſpecies*, which is bred in the neighbourhood of *Gaddemz*, *Wurglah*, and the more diſtant places of the *Melanogætuli* and *Garamantes*, is near as tall as our *fallow deer*; and, excepting the head, differs not much in ſhape. The heat of the climate, the ſcarcity of water, joined to the coarſeneſs and dryneſs of the herbs they feed upon, may be the reaſon why their fleſh is dry to the palate, and why their fleeces likewiſe are as coarſe and hairy as thoſe of the *goat*.

The broad-tailed ſheep.

The ſheep of the Sahara.

A *gelding* among the *horſes*, an *ox* among the *black cattle*, or a *weather* among the *ſheep*, is rarely or ever known among them. For ſuch males of *ſheep* or *black cattle*, as are more than ſufficient for the preſervation of the *ſpecies*, and are intended for ſale or the ſhambles, have only their teſticles ſqueezed or diſcompoſed, when they are three months old; the *Mahometans* accounting it an act of great cruelty, to caſtrate creatures of any other *ſpecies* than their own.

No geldings, &c.

Beſides this great variety of *cattle*, we may obſerve further, that each kind is very numerous and prolifick. Several *Arabian tribes*, who can bring no more than three or four hundred *horſes* into the field, are poſſeſſed of more than ſo many thouſand *camels*, and triple that number of *ſheep* and *black cattle*. The *Arabs* rarely diminiſh their flocks, by uſing them for food, but live chiefly upon bread, milk, (γαλακτοπότες, as they have been called) butter, dates, or what they receive in exchange for their wool. Such *cattle* likewiſe as are brought to their *fairs*, or to the neighbouring towns and villages, are very inconſiderable, when compared with the yearly increaſe. By proper care therefore and attendance; nay, if theſe numerous flocks and herds had ſhelter from the inclemency of the weather, during a ſmall part only of the winter ſeaſon, this whole country, in a few years, would be over-run with *cattle*.

The number of their flocks.

The bekker el waſh, *or wild cattle.*

Among the *quadrupeds* that are not naturally tame and domeſticated, we may reckon thoſe large herds of the *neat kind*, called *bekker el waſh* [8], which have a rounder turn of body, a flatter face, with their horns bending more towards each other than in the tame kind. The *bekker el waſh* then may be well taken for the *bubalus* of the antients [9], or the *bos Africanus* of *Bellonius*; though what this author deſcribes, is little bigger than the *caprea* or *roe-buck*; whereas the *bekker el waſh* is nearly of the ſame ſize with the *red-deer*; with which alſo it agrees in colour. The young *calves* of this *ſpecies* quickly grow tame, and herd with other cattle.

Their deer.

Bekker el waſh is the name likewiſe given to a *ſpecies* of the *deer kind*, whoſe horns are exactly in the faſhion of our *ſtag*; but the ſize is only betwixt the *red* and the *fallow deer*. Thoſe, which I have ſeen, were caught in the mountains near *Skigata*, and appeared to be of the ſame mild and tractable nature with the *bekker el waſh*. The female, for want of horns, is called in deriſion, *fortaſs*, i. e. *the broad ſcalp*, or *ſcall'd head*.

The fiſhtâll, *or* lerwee.

The *Fiſhtâll*, called likewiſe, in ſome parts, *lerwee*, is the moſt timorous *ſpecies* of the *goat-kind*, plunging itſelf, whenever it is purſued, down rocks and precipices, if there be any in its way. It is of the bigneſs of an *heifer* of a year old, but has a rounder turn of body, with a tuft of ſhagged hair upon the knees and neck; this near a foot, the other about five inches long. It agrees in colour with the *bekker el waſh*, but the horns are wrinkled and turned back like the *goat's*; from which likewiſe they differ in being more than a foot long, and divided upon the forehead by a ſmall ſtrip of hair, as in the *ſheep-kind*. The *fiſhtâll*, from its ſize, ſhape, and other circumſtances, ſeems to be the *tragelaphus* [1] of the ancients; an animal, we are to imagine ſuch as this is, betwixt a *goat* and a *deer*. *Pliny* indeed obſerves, that it was peculiar to the banks of the *Phaſis*; a miſtake of the ſame kind with what he relates elſewhere, that there were no *ſtags* (*cervi*) in *Africa*.

The tragelaphus.

[8] بقر الوحش i. e. Bos Silveſtris. وحشي (wâſhy) enim ferum, ſylveſtre animal ſignificat. *Gol.*

[9] Vid. *Pet. Bellon. Obſervat.* l. ii. cap. 50. Inſignia boum ferorum genera, jubatos *biſontes*, excellentique & vi & velocitate *uros*, quibus imperitum vulgus *bubalorum* nomen imponit, cum *id* gignat *Africa*, vituli potius *cervive* quadam ſimilitudine. *Plin.* l. viii. cap. 15. *Uros* imperitum vulgus vocat *bubalos*, cum *bubali* pene ad *cervinam faciem* in *Africa* procreentur. *J. Solin. Polyhiſt.* cap. 32.

[1] Eadem eſt ſpecie, [cum *cervo* ſc.] barba tantum & armorum villo diſtans, quem Tragelaphon vocant, non alibi, quam juxta *Phaſin* amnem, naſcens. Cervos *Africa* propemodum ſola non gignit. *Plin.* l. viii. cap. 33.

Beſides

Beſides the common *gazell* or *antilope*, this country produces another *ſpecies*, of the ſame ſhape and colour, though of the bigneſs of the *roe-buck*, with horns ſometimes two foot long. This, which the *Africans* call *lidmee*, may be the ſame with the *ſtrepſiceros*[2] and *addace* of the ancients. *Bochart*, from the ſuppoſed whiteneſs of the buttocks, finds a great affinity betwixt *addace*[3] and [דישון] *diſon*; which, in *Deut.* xiv. 5. our tranſlation, agreeably to the *Septuagint* and *Vulgate* verſions, renders the *pygarg*.

The gazell *or* antilope. *The* lidmee, *the* ſtrepſiceros, *and* addace.

The *bekker el waſh* and the *gazel* are gregarious, and have both of them the like habit of ſtopping on a ſudden, when they are purſued, and of looking back, for a ſhort time, upon the purſuers. Their haunts are likewiſe the ſame, being for the moſt part upon the confines of the *Tell* and the *Sahara*. *Gazell* is improperly interpreted by *Bochart* and others[4], the *hart*, or the *fawn*: that appellation being always given, both in the *Levant* and in *Barbary*, to the animal which we call the *antilope*.

Theſe ſpecies *gregarious*.

Among the *quadrupeds* of a leſs tameable nature, we muſt give the firſt place to the *lion*, and then to the *panther*; for the *tiger* is not a native of *Barbary*. The females of both *ſpecies* have two rows of nipples like a *bitch*, which give ſuck to three, ſometimes to four or five whelps. Mr. *Ray* (*De quadr.* p. 165.) muſt have been miſinformed in giving *two nipples* only to the *lioneſs*. When the little ones breed their teeth, they are uſually ſeized with fevers, which carry off three in four of them; and this is the reaſon, as the *Arabs* inform us, why their numbers are ſo inconſiderable. But whether this is owing to ſuch diſeaſes, or to the great diſperſion rather of the *Arabs*, (*Ex.* xxiii. 29. *Deut.* i. 22.) or perhaps to the much eaſier way of killing them, ſince the invention of fire arms; whatever, I ſay, may be the cauſe, it is certain, there would be great difficulty at preſent, to procure a fiftieth part of thoſe *lions* and *panthers* which *Africa* contributed formerly to the diverſions of *Rome*[5].

The lion *and* panther.

[2] *Cornua* erecta, rugarumque ambitu contorta, & in leve faſtigium exacuta (ut lyras diceres) *Strepſiceroti*, quem *Addacem Africa* appellat, *natura dedit*. *Plin.* l. xi. cap. 27.

[3] A cinereo nempe colore, qui Hebræis דישן *diſen* dicitur. *Boch. Hieroz.* l. iii. cap. 2.

[4] Capreæ hinnulus غزال *Gazal Arabice* dicitur (vulgo *Gazella*) ut *Hebraice* עיזל in *Pomario*, & *Chaldaice* אוריזל inſerto *r*, ut paſſim, & prima gutturali *Ajin* in *Aleph* mutato. *Boch. Hieroz. ibid.* cap. 18. Nomen *Gaſel*, ſive CERVÆ (equo impoſitum.) *Kempf. Amœnit. Exot. Faſc.* ii.

[5] Leonum ſimul plurium pugnam *Romæ* princeps dedit Q. *Scævola* P. filius in curuli Ædilitate. Centum autem jubatorum primus omnium *L. Sylla*, qui poſtea

The lion *not afraid of women.*

I have read in ſome deſcriptions of this country, that *women* can be familiar with *lions*; and that, upon taking up a ſtick, and ſpeaking boldly to them, they will immediately loſe their fierceneſs, and leave their prey. Something perhaps of this kind may happen, when they have been well ſatiated with food; at which time the *lions* are ſuppoſed to loſe their courage, and that they therefore ſuffer their prey to be ſeized, and reſcued out of their jaws. But theſe inſtances are very rare; it oftener falling out, that perſons of riper age, as well as children, have been, for want of other food, torn to pieces, and eat up, by this *devourer*[6], as he is emphatically called in Scripture. Fire is what they are the moſt afraid of; yet, notwithſtanding all the precaution of the *Arabs* in this reſpect; notwithſtanding the barking of their dogs, and their own repeated cries and exclamations during the whole night, when they are ſuſpected to be upon the prey; it frequently happens that theſe ravenous beaſts, out-braving all theſe terrors, will leap into the midſt of a *douwar*, (where the cattle are encloſed) and drag from thence a ſheep or a goat. If theſe ravages are repeated, then the *Arabs* dig a pit, where they are obſerved to enter; and, covering it over ſlightly with reeds, or ſmall branches of trees, they frequently decoy and catch them. *Pliny* has taken notice of the ſame practice; which is likewiſe alluded to, *Ezek.* xix. 8. *Pſ.* ix. 15. and in other places of Scripture. The fleſh of the *lion* is in great eſteem, having no ſmall affinity with *veal*, both in colour, taſte, and flavour. The diſtinction of animals was little known or attended to by the ancient *Romans*, when, according to an obſervation of *Lipſius*[7], they called the *lion* a *bear*, and the *panther* a *rat* of *Africa*.

The faadh, *or* chamus.

The *Faadh* [فهد] agrees with the *leopard* in being ſpotted, but differs in other reſpects. For the ſkin is not only of a deeper colour, but alſo much coarſer; neither is the creature itſelf of ſo fierce a nature. However, the *Arabs* fooliſhly imagine it to be a ſpurious

Dictator fuit, in Prætura. Poſt eum *Pompeius Magnus* in Circo nc. in iis jubatorum cccxv. *Cæſar* Dictator cccc. Capere eos, *ardui erat* quondam *operis*, foveiſque [*ut & nunc eſt*] maxime. *Plin.* l. viii. cap. 16. *Scaurus* Ædilitate ſua varias [i. e. pantheras] centum quinquaginta univerſas [in *Romam*] miſit: dein *Pompeius Magnus* quadringentas decem: divus *Auguſtus* quadringentas viginti. *Id. ibid.* cap. 17.

6 *Out of the eater* (לאכל it ſhould be DEVOURER) *came forth meat.* Judg. xiv. 14.

7 Peregrina cum ad *Romanos* advehebantur, ſtupebant: & nomen iis dabant non ſuum, ſed obvium aliquod & e vicino ſuo rure. — Ita *pantheras* vocarunt *mures*, ut opinor, *Africanos* — Tale in *leonibus* eſt. Cum primum viſi, non leones externo eos nomine inſignierunt, ſed noto & domeſtico *urſos*. — *Virgilium* quidem dum *Aceſtem* tegit *Pelle Libyſtidos urſæ*, certum mihi intellexiſſe *leoninam*, &c. Vid. *J. Lipſ. Elect.* l. ii. cap. 4.

offspring

offspring betwixt the *lion* and *leopardess*. It feeds upon carrion, sometimes upon roots and herbs, like the *jackall* and the *dubbah*, and must be in great necessity when it ventures upon a *sheep* or a *goat*. As the *faadh* then can scarce be taken for the θῶς or *lupus cervarius* of the ancients, which is described as a much fiercer creature, the *chamus* [8] of *Pliny* seems better to agree with it.

The lesser panther.

Besides this, there are two other animals that are marked like the *leopard*; only with this difference, that their spots are generally of a darker colour, as their fur is somewhat longer and softer. The first is of the *cat-kind*, about one third less than a full grown *leopard*, and may be taken for the lesser *panther* of *Oppian*. The other has a small pointed head, with the teeth, feet, and other characteristics of the *weesel-kind*. The body is about a foot long, round and slender, with a regular succession of black and white ringlets upon the tail. This, as well as the *ichneumon*, searches after poultry; and, provided it was tamer and somewhat larger, (as it is sometimes well scented) we might well take it for the *ginetta* [9]. This creature has two names; being called by some *gat el ber-rany*, i. e. *the strange* or *foreign cat*; and by others *shib-beardou*; but I should call it, for the reasons above, the *lesser ginetta*.

The shibeardou, *or* Spanish ginetta.

The dubbah, *or* hyæna.

The *dubbah* is of the *badger kind*, near the bigness of a *wolf*, but has a flatter body, and naturally limps upon the hinder right leg: yet notwithstanding this imperfection, the *dubbah* is tolerably swift, and cannot be so easily run down by the hunters of these countries as the *wild boar*. The neck of it is so remarkably stiff, that in looking behind, or snatching obliquely at any object, it is obliged, in the same manner with the *hog*, the *badger*, and *crocodile*, to move the whole body. It is of a buff or dun colour, inclining to be reddish, with some transverse streaks of a dark brown; whilst the hairs upon the neck are near a span long, which it can occasionally erect, notwithstanding they are much softer than the bristles of a *hog*. The paws are large and well armed, serving, in want of other food, to lay open the *cephaglione*, (i. e. the *medulla*, *cerebrum*, or

[8] *Pompeii* Magni primum *ludi* ostenderunt *chaum*, quem *Galli rhaphium* vocabant, effigie lupi, pardorum maculis. *Plin.* l. viii. cap. 19. Vid. *Gesn. De quadrup.* p. 549, 550. *Jonst. De quadrup.* cap. 12. *Raii Synops. animal. quadrup.* p. 201. Quærendum an genus aliquod sit *thois* vel *pantheris minoris*, quorum meminit *Oppianus*. Conveniunt enim magnitudo, maculæ, ingenium (nam & panthera minorem innoxium esse *Oppianus* scribit) & usus pellium ad vestes pretiosus, & insuper odor suavis. *Gesn.* ut supra.

[9] *Genetha* vel potius *genetta* aut *ginetta* [*Genocha* apud *Albertum* perperam] est bestia paulo major [minor, *Alber.* & recte] vulpecula, &c. *Id. ibid.*

ἐγκέφαλος)

ἐγκέφαλος) of the *palmeta*, or *dwarf palm*; to dig up the roots of plants, and ſometimes the graves of the dead, which lie, among the *bedoweens*, in the open fields, without being ſecured by walls, trenches or incloſures. When the *dubbah* is taken, the *Arabs* are very induſtrious to bury the head; leſt the brain, according to their ſuperſtition, ſhould be uſed in ſorcery and enchantment: an ancient practice, as appears from the *duræ nodus hyænæ*; an expreſſion in *Lucan*, l. vi. Next to the *lion* and *panther*, the *dubbah* is the fierceſt of the wild beaſts of *Barbary*; and, from the characteriſtics of having long hair upon its neck, like a mane; moving its neck with difficulty, and diſturbing the graves of the dead [1]; it may lay in a greater claim to the *hyæna* of the ancients, than the *civet cat*, or the *badger*, which are leſſer animals, and not known, as far as I can learn, in *Barbary*.

The dheep, *or* jackall.

The *deeb* [2] is of a darker colour than the *fox*, though near the ſame bigneſs. It yelps every night about the gardens and villages; feeding, as the *dubbah* does, upon roots, fruit, and carrion. Mr. *Ray* [3] ſuppoſes it to be the *lupus aureus* of the ancients; though what *Oppian* deſcribes by that name is larger, and of a much fiercer nature [4].

The *deeb* is likewiſe the ſame with the *jackall*, or the *chathal* of the more eaſtern countries, not differing much in ſound from the *Hebrew* שעל *ſhaal*, which is rendered the *fox* in ſeveral places of *Scripture*; and as we have before obſerved, that this animal feeds upon fruit and dead carcaſes, we may ſee the propriety of *Pſalm* lxiii. 10. where *they that ſhall fall by the ſword* are ſaid *to be* (to become) *a portion* (or *proviſion*) *for the ſhaalim*: and of *Cant.* ii. 15. where *the little ſhaalim* are deſcribed *to ſpoil the vines, and* (as we may further ſuppoſe) *to eat the tender grapes.*

[1] *Hyænam* quoque mittit *Africa*, cui cum ſpina riget, collum continua unitate flecti nequit, niſi toto corpore circumacto. *Solin.* cap. 40. *Plin.* l. viii. cap. 30. Ὃν δὲ καλοῦσιν οἱ μὲν γλάνον, οἱ δὲ ὕαινον· ἔστι τὸ μέγεθος οὐκ ἔλαττον λύκου, χαίτην δ' ἔχει ὥσπερ ἵππος, καὶ ἔτι σκληροτέρας καὶ βαθυτέρας τὰς τρίχας, καὶ δι' ὅλης τῆς ῥάχεως — τυμβωρυχεῖ δὲ, ἐφιέμενον τῆς σαρκοφαγίας τῶν ἀνθρώπων. *Ariſt. hiſt. anim.* l. viii. cap. 5. Vid. *Boch. Hieroz.* l. iii. cap. 11.

[2] *Alkamus*, in his *lexicon*, makes the *deeb* (الذئب) and the (تنين) *teenan* to be the ſame; and as the latter has a great affinity with *tannin*, which is commonly rendered *a dragon*, or *dragons*, in Scripture, it is highly probable, that theſe *tannin* or *tannim* ſhould be ſometimes, inſtead of *dragons*, interpreted *deebs*, or *jackalls*; as will afterwards be farther taken notice.

[3] Vid. *Raii Synopſ. Animal.* p. 174.

[4] Οὐ λύκος, ἀλλὰ λύκου προφερέστατος, αἰπύτατος θήρ.
Oppian. Cyneg. l. iii.

However, *Bochart* deduceth the name from the *Heb.* (זאב) *zaab, gold.*

Bochart [5] has made it probable, that the *jackalls* were the θωὲς of the *Greeks*, the *beni awi* of the *Arabians*, and the (אִיִּים) *ijim* or *iim*, (*Iſa.* xiii. 22. xxxiii. 14; and *Jer.* l. 39.) which we render *the beaſts of the iſlands:* an appellation very vague and undetermined. (Some *Jewiſh* commentators make it the plural of אִי, which we render the *kite*, *Lev.* xi. 14. and *Deut.* xiv. 13.) Of the like nature alſo is (צִיִּים) *tziim*, or *ziim (ibid.)* which we call in general, *the wild beaſts of the deſert*, inſtead of ſome particular well-known *ſpecies*, as may be rather ſuppoſed, that frequents it. Whereas, by fixing the latter to the *black cat*, which will be hereafter deſcribed, and the *ijim* to the *jackall*, both of them noted animals, frequenting no leſs the uncultivated than the cultivated parts of theſe countries, and making all the night long a perpetual howling, yelping, or ſqualling noiſe, we may have a proper notion, as it is there related, of their *meeting together, and crying out in their deſolate places.* The *jackalls* alſo, as they are creatures by far the moſt common and familiar, as well as the moſt numerous of thoſe countries, ſeveral of them feeding often together; ſo we may well perceive the great poſſibility there was for *Sampſon* to take, or cauſe to be taken, three hundred of them. The *fox*, properly ſo called, is rarely met with; neither is it gregarious.

The *gat el khallah, ſiyah ghuſh*, or *karrah ku-lak*; i. e. *the black cat*, or *black-ear'd cat*, as the *Arabic*, *Perſian*, and *Turkiſh* names ſignify, is of the bigneſs and ſhape of a *cat* of the largeſt ſize. The body is of a reddiſh-brown; the belly of a lighter colour, and ſometimes ſpotted; the chops are black, the ears of a deep grey, with the tips of them diſtinguiſhed, by ſmall tufts of black ſtiff hair, as in the *lynx*. The figure given us of this animal by

The ſiyah-guſh, *or* black-ear'd cat.

[5] *Hieroz.* l. iii. cap. 12.

Ἀλφοινοὶ θῶες, i. e. πυῤῥοὶ fulvi, ut habet ſcholiaſtes, Il. λ.

Θῶας ὑπερφιάλως ἔλαφον περιποιπνύεσθαι
Ἀγερομένους. Oppian. Halieut. l. ii.

i. e. συναθροιζομένους, *confertos*, congregatos. Scholiaſt. Il. λ. 574.

עָוָא awa, i. e. *ululare* ſeu *latrare* proprium canis, lupi, et filii *awi*. *Alcamus in Lexico.*

Utrumque nomen אִי et עָוָא eſt ὀνοματοποιητικὸν, ab ululatu.

Θῶες & θωύσσειν ſunt conjugata; porro θωύσσειν eſt ὑλακτεῖν latrare. Ut ſupra de *awa*, ex Alcamo, ita J. Pollux de ὑλακτεῖν; Ἀλωπέκων καὶ θώων καὶ λύκων τὸ ὑλακτεῖν.

Charle-

Charleton [5], is not ſo full in the chops as the *Barbary ſiyah ghuſh*; which, together with the *jackall*, are generally ſuppoſed to find out proviſion or prey for the *lion*, and are therefore called the *lion's provider*. Yet it may be very much doubted, whether there is any ſuch friendly intercourſe betwixt them. In the *night*, indeed, *when all the beaſts of the foreſt do move* [6], theſe, as well as others, are prowling after ſuſtenance; and *when the ſun ariſeth*, and *the* lion *getteth himſelf away to his den*, both the *black cat* and the *jackall* have been often found gnawing ſuch carcaſes, as the *lion* is ſuppoſed to have fed upon the night before. This and the promiſcuous noiſe, which I have heard the *jackall* particularly make with the *lion*, are the only circumſtances which I am acquainted with in favour of this opinion. However, this feeding together, and intercourſe betwixt the *jackall* and the *black cat*, at theſe ſeaſons, more than what has been obſerved betwixt any other two of the leſſer wild beaſts, may further confirm the conjecture of *Bochart*, that the latter might be the *tziim*; eſpecially as صباقى *dziwîn*, a name of the ſame ſound in the *Arabic*, denotes ſuch a creature.

The porcupine. It may be obſerved of the *porcupine*, that of the many which I have ſeen in *Africa*, I never knew any of them, though very much provoked, that could dart their quills. Their uſual method of defence is, to recline themſelves on one ſide, and, upon the enemy's near approach, to riſe up quickly, and gore him with the erected prickles upon the other. The fleſh of this animal, when fat and young, is very well taſted, and in great eſteem. The near analogy alſo betwixt *kunfood*, the *Arabic* name of the *hedge-hog*, (which is here very common,) and the *Hebrew* קפוד *kephôde*, (*Iſ.* xxxiv. 11, *&c.*) ſhould induce us to take it for that *quadruped*, according to the LXX ἐχῖνος, rather than for the *bittern*, as we tranſlate it.

The jird *and* jerbôa. The *jird* [7], and the *jerbôa* or *yerbôa*, are two little harmleſs animals, which burrow in the ground. They chiefly frequent the *Sahara*, though I have often ſeen the latter in the plains of *Warran*. Each of them is of the bigneſs of a *rat*, having their bellies white, but the reſt of their bodies of a ſorrel colour. The ears likewiſe of them both are round and hollow; in ſome long, in others ſhort; agreeing with the *rabbit* in the order of their fore-teeth, and in the briſtles of their chops; though they differ in other reſpects. For the head of the *jird* is ſomewhat pointed, and

[5] Vid. *Charl. Exercit.* p. 23.

[6] *Pſalm* civ. 20, 21, and 22.

[7] *Bochart* (*Hieroz.* l. ii. p. 249.) renders it the *great mouſe*.

covered

covered all over with fur; whereas the noſtrils of the *jerboa* are flat and naked, lying nearly in the ſame plain with the mouth; wherein alſo it differs from thoſe which have been brought from *Aleppo*, and are deſcribed by Mr. *Haym*[8]. All the legs of the *jird* are nearly of the ſame length, with each of them five toes; whereas the fore-feet of the *Barbary jerboa* are very ſhort, and armed only with three. The hinder-feet are nearly of the ſame length with the body, with each of them four toes, beſides two ſpurs, as we may call the little ones that are placed more than an inch above them. The tail of the *jird*, though a little ſhorter than in the common *rat*, yet is better cloathed: whilſt that of the *jerboa* is as long as its body, of a yellowiſh colour, with a black tuft near or upon the extremity. They are both good to eat; and the latter, notwithſtanding the great diſproportion betwixt the fore and hinder feet, runs or rather jumps along with extraordinary ſwiftneſs; the tail, which it carries for the moſt part erect, or occaſionally reclined, contributing all the while to the regularity of its motion.

The *jerboa* has been taken by ſome authors[9] for the [שפן] *ſaphan*[1] of the Scriptures, though the places, where I have ſeen them burrow, have never been among the rocks; but either in a ſtiff loamy earth, or elſe, where their haunts uſually are, in the looſe ſand of the *Sahara*: eſpecially where it is ſupported by the ſpreading roots of *ſpartum*, *ſpurge-lawrel*, or other the like plants. Agreeably to this method of their burrowing in the ground, under the roots of plants, ſome *Cyrenaic* medals exhibit little animals of this kind, under an umbellated plant, ſuppoſed to be the *ſilphium*. *The* jerbôa, *not the* ſaphan.

That remarkable diſproportion betwixt the fore and the hinder legs of the *jerboa* or δίπους (though I never ſaw them run, but only ſtand or reſt themſelves upon the latter) may induce us to take it for one of the δίποδες or two-footed γάλαι or rats, which[2] *Herodotus* and other authors deſcribe as the inhabitants of theſe countries; particularly (τὰ Σιλφίου) of the *province of Silphium*.

Beſides the animals abovementioned, *Barbary* produces the *bear* (or *dabb*[3], according to their appellation,) the *ape* or *ſheddy*; the *ichneu-* *Other animals of this country.*

[8] Vid. *Nic. Haym. Teſoro Britannico*, vol. ii.

[9] Vid. *Boch. Hieroz.* l. iii. cap. 33.

[1] *The high hills are a refuge for the wild goats, and ſo are the ſtony rocks for the* [ſaphannim שפנים] conies, *Pſalm* civ. 18. *The* conies [שפנים ſaphannim] *are but a feeble folk, yet make they their houſes in the rocks*, Prov. xxx. 26.

[2] *Herod. Melp.* § 192. *Theoph.* apud *Ælian. Hiſt. Anim.* l. xv. cap. 26. *Photius*, ibid. *Ariſt. De murib. Ægypt.*

[3] דב Dab. *Urſus.* דביב *Dabiba* enim *Arabice* eſt piloſam habere faciem, unde דב *Dab* faciei pili & villi, &c. *Boch. Hieroz.* l. iii. cap. 9.

mon or *tezerdea*; the *fox* or *thaleb* ثعلب; the *ferret* or *nimſe*; and the *weeſel* or *fert el heile*. The *mole* likewiſe, the *rabbit*, the *hare*, and the *wild boar*, are every where in great numbers. The laſt of theſe, the chief prey and food of the *lion* (in *Ecclus* xii. 19. the *onager* or *wild aſs* is deſcribed to be ſuch,) has ſometimes been known to defend itſelf with ſo much bravery, that the victory has inclined to neither ſide; the carcaſes of them both having been found lying one by the other, torn and mangled to pieces.

The wild boar *the* lion's *food.*

SECT. II.

Of the oviparous quadrupeds.

The tortoiſe. AMONG the OVIPAROUS QUADRUPEDS, we are to place the *land* and *water tortoiſe*; the latter of which has a flatter body; though neither of them are peculiar to *Barbary*. The former, which hides himſelf during the *winter* months, is very palatable food; but the latter is very unwholeſome. The *taitah* [4], or *bouiah*, as they call the *chamæleon*, may be diſcovered, by a good eye, upon every hedge. The tongue is four inches long, and, in ſhape like to a ſmall peſtle; which it darts upon *flies* and *inſects* with a ſurpriſing ſwiftneſs; and retains them afterwards by a glutinous matter, that is excreted from the tip of it. The *Moors* and *Arabs*, after they have dried the ſkin, ſuſpend it upon their boſoms to prevent the influence of an evil eye. The *taitah* differs little in name from the לטאה *letaa*, which in *Lev.* xi. 30. is rendered the *lizard*; and therefore the *chamæleon*, a ſpecies indeed of *lizard*, might, with more propriety, be ſubſtituted for it.

The chamæleon.

The warral. The *warral*, or *guaral*, according to *Leo* [5], is ſometimes thirty inches in length; being uſually of a bright reddiſh colour, with darkiſh ſpots. *Vanſleb* [6] is ſo weak a philoſopher, as very ſeriouſly to affirm, that the *warral* is ingendered from the rotten eggs of the *crocodile*.

The dab. The [ضب] *dhab* or *dab*, another *lizard*, taken notice of likewiſe by *Leo* [7], agrees nearly in ſhape and in the hard-pointed *annuli* or ſcales of the tail, with the *caudiverbera*, as it is repreſented in *Geſner* [8] and *Johnſton*. *Tſab* [צב] [9] therefore, a word of the ſame ſound in the *Hebrew*, *Lev.* xi. 29. is tranſlated erroneouſly, as we may ſuppoſe, the *tortoiſe*, inſtead of the *ſharp-ſcaled-tailed lizard*.

[4] Vid *Boch. Hieroz.* l. iv. cap. 4.
[5] *J. Leo. Deſcript. Africæ* l. ix. p. 297. [6] Vid. *Vanſleb's Preſent ſtate of Egypt*, p. 47.
[7] Vid. *J. Leo* ut ſupra. [8] *Geſn. De quadrup. ovip.* p. 23. *Jonſt. Hiſt quadrup.* tab. LXXIX. [9] *Boch. Hieroz.* l. iv. cap. 1.

The

To face p. 270.

The Ichneumon Obs. p. 178.

The Male and Female Shinkore Obs. p. 348.

The Booka-shash Obs. p. 179.

The large ballated Sea Urchin with rough knobby Prickles. Found in the Red Sea.

The common Locust of Barbary Obs. p. 287.

To the Reverend Mr. THOMAS HAYTER A. M. Archdeacon of York.

The *zermoumeah* is as frequent in the highways and hedges, as the common *green lizard*. It is a mighty ſlender, elegant animal, with a long taper tail, of a light-brown colour, all over beautifully ſtriated with yellow ſtreaks. *The* zermoumeah.

The *ſkink* or *ſcincus* frequently hides itſelf under flat ſtones, or elſe in the holes of old walls and ruins. In the like ſituation (though they often come into our houſes, and crawl over our beds) we find the *nije-daimah*, or *booka-ſhaſh*; which is of a dark gloomy colour, ſeven or eight inches long, with a flat head and body, and with the tail like the *dab's*. I have often obſerved, that the *booka-ſhaſh* would beat with its tail, the walls, floors, or cieling, which it reſted upon: a circumſtance that may induce us to take this for the ſmaller, and the *dab* for the greater *caudiverbera* or *uromaſtix*[2]. The *warral* alſo, in running upon the ground, uſes the like action; whilſt the *Arabs* gravely affirm, that the perſon who is touched by one of theſe ſtrokes, will become barren and unfruitful. *The* ſkink, *or* ſcincus. *The* neije-daimah, *or* uromaſtix.

SECT. III.

Of the ſerpentine kind.

NOT to mention the *ſlow-worm* and the *ſnake*, which are common, the moſt remarkable *ſpecies* of the SERPENTINE KIND is the *thaibanne*, which might well be taken for *Lucan's Thebanus ophites*, provided *Thebanus* was an *appellative*, and not the proper name of the ſerpent. I have been informed, that ſome of them are three or four yards long; and as it is by far the largeſt ſerpent in *Barbary*, it will ſo far anſwer to the *hæmorrhous*, to which *Lucan* has given the epithet of *ingens*; the many others, which he deſcribes, being probably much ſmaller, and of the viper-ſize. I have ſeen purſes made of the ſkin of the *thaibanne*, which were more than four inches wide.

The *zurreike*, another *ſerpent* of the *Sahara*, is uſually about fifteen inches long. It is of a ſlender body, and, being remarkable, as the name[1] (from ز ر ق *zurak*, *jaculari*) inſinuates, for darting itſelf along with great ſwiftneſs, may perhaps be one of *Lucan's jaculi volucres*. *The* zurreike, *or* jaculus.

But the moſt common as well as malignant of this *tribe*, is the *leffah*, which, like our *viper* or *adder*, is of a leſs uniform turn of body than the *zurreike*, and rarely exceeds a foot in length. It is not always of the ſame colour: but varies a little according to the quality of the earth, ſand, or rocks, where it is found[2]. The *torrida dipſas* anſwers very well. *The* leffah, *or* dipſas.

[1] Vid. *note* 9.

[2] This circumſtance and quality in the *ſerpent-kind* has been taken notice of by *Pliny*; *Vulgatum eſt*, ſays he, l. viii. c. 28. *ſerpentes pleroſque colorem terræ habere, qua occultantur*. Vid. etiam *Nicand.* in *Sepe* & *Sepedone*.

both to the name and to the quality of the *leffah*; which is so called from لفح *leffah*, *(urere) to burn.*

The antipathy *betwixt it and the* bouiah.

The *Arabs* report, that there is the same antipathy betwixt the *leffah* and the *taitah*, which was long ago assigned[3] to the *chamæleon* and the *viper*; and that a little drop of clammy juice, which the *taitah* lets fall upon the *leffah*, will throw it into such violent convulsions, as are attended with immediate death.

The species *of the* serpentine *kind not numerous.*

These, after the most diligent search and inquiry, are the only species of the *viper* kind that I am acquainted with: and I am persuaded, that the northern parts of *Africa* do not produce above five or six distinct species among the many that are described by *Lucan*[4] and *Nicander*. For it may be observed, in the first place, that the *scytale*, so called from σκυτάλη, *baculus*, which was also the *slow* or *blind worm*, the same with the *cæcilia* or τυφλίνη, was, in all probability, (from the uniform shape of body, the head and the tail being nearly of the like thickness) no other than the *amphisbæna*. The *cenchris* also, from κέγχρος, its millet-like spots, and from being of a larger size, according to *Nicander*, was not different from the *Thebanus ophites*; which, from the name, should be spotted like the *granite* or *serpentine* marble. Yet still, these spots are no distinguishing characteristics; inas-

The scytale, *the* slow *or* blind worm.

3 Vid. *Ælian. Hist. Animal.* l. iv. cap. 33. *Philen. De propr. anim.* in Chamæleonte. *Scalig. ad Cardanum De subtilit.* apud *Gesn.* ut supra.

4 Hic quæ prima caput movit de pulvere tabes,
Aspida somniferam tumida cervice levavit, &c.
At non stare suum miseris passura cruorem
Squamiferos ingens *Hæmorrhois* explicat orbes.
Natus & ambiguæ coleret qui *Syrtidos* arva
Chersydros, tractique via fumante *Chelydri*;
Et semper recto lapsurus limite *Cenchris*;
Pluribus ille notis variatam pingitur alvum,
Quàm parvis tinctus maculis *Thebanus Ophites*;
Concolor exustis atque indiscretus arenis
Ammodyes; spinaque vagi torquente *Cerastæ*;
Et *Scytale* sparsis etiam nunc sola pruinis
Exuvias positura suas; & torrida *Dipsas*;
Et gravis in geminum surgens caput *Amphisbæna*;
Et *natrix* violator aquæ, *Jaculique* volucres;
Et contentus iter cauda sulcare *Pareas*;
Oraque distendens avidus spumantia *Prester*;
Ossaque dissolvens cum corpore tabificus *Seps*.
Sibilaque effundens cunctas terrentia pestes,
Ante venena nocens, late sibi submovet omne
Vulgus, & in vacua regnat *Basiliscus* arena.

Luc. Bell. civ. l. ix.

much

much as they may be attributed, more or leſs, to all or to the greateſt part of the ſerpentine-kind.

With regard alſo to the *aſpis*, this had a great variety of *ſpecies* or ſynonyms rather. *Ælian* (*Hiſt. Anim.* l. x. c. 3.) reckons them to be ſixteen. *Plures, diverſæque ſunt aſpidum ſpecies* (ſays *Solinus*, c. xxvii.) *verum diſparis effectus ad nocendum: Dipſas* (from δίψάω) *ſiti interficit; hypnale* (from ὕπνος) *quod ſomno necat.* To which we may add the *preſter* and *ſeps*; the bite of the former being attended with a fever, as a derivative from πρήθω; the bite of the latter, being attended with a corruption of the whole maſs of blood, (the ſame poiſon working differently, according to the habit of body in the wounded perſon;) as a derivative from σήπω. As to the name itſelf of *aſpis*, it might have been generical, from coiling itſelf up like a *ſhield*; ἀσπὶς *ſcutum dicitur, eo quod ad caput tegendum reliquo corpore pro ſcuto utitur.* So that all the properties and characteriſtics abovementioned, may be well attributed to one and the ſame animal. Conſequently the *aſpis*, the *dipſas*, the *uphale*, the *preſter*, and *ſeps*, might be only one ſingle *ſpecies* of *viper*, under theſe different appellations. *The* aſpis, dipſas, &c.

The *natrix*, in like manner, (which is alſo the *coluber* and *anguis*) was probably the ſame with the *chelydris* or *chelydrus*, from its ſtinking quality, implied in the expreſſion *via fumente*, or from living and depoſiting its eggs in dunghils: the *viper*-kind, on the contrary, being all of them ſweet, and, in ſmell, altogether inoffenſive. The ſame might alſo be the *cherſydros* (χέρσος *et* ὕδωρ) from frequenting both the land and water; contrary to the cuſtom of the *viper-kind*, which lives conſtantly upon land. The *pareas* too, (ὃ δὲ τὰς παρείας μείζους ἔχειν, tho' the whole *genus* can, upon occaſion, enlarge their jaws) from being ſacred to *Æſculapius*, ſhould be no other than the *anguis* or *natrix*. The *natrix* therefore, the *coluber*, *anguis chelydris* or *chelydrus*, together with the *cherſydros* and *pareas*, were likewiſe one and the ſame creature. *The* natrix, coluber, &c.

The *ammodytes*, from its bright ſandy colour, anſwers exactly to the *ceraſtes*, which is deſcribed to be *concolor exuſtis arenis*: though it is particular enough, that no notice is taken of the horns (τὰ κέρατα) by *Lucan*, from whence it received its very name. And this circumſtance may give us room to ſuſpect, that the *poet* had a greater regard to apply, at all adventure, ſuch a ſet of vague indiſcriminating phraſes, as would beſt ſuit his poeſy, and be applicable to the whole *genus*, than to aſſign to each *ſpecies*, like an accurate naturaliſt, its real and *ſpecific* ſignatures and characteriſtics. And further, *Nicander*, in giving horns indiſcriminately to the *aſpis*, *echis*, *ceraſtes*, and *hæmorrhous*, ſeems to make them one and the ſame ſerpent, notwithſtanding ſome ſmall and perhaps accidental and non-permanent differences in their colours. *The* ammodytes, ceraſtes, &c.

Neither

Neither can any right *ſpecific* diſtinction or characteriſtic be drawn from what that author too often inſiſts upon, *viz.* their ſtreight and direct, or their oblique and ſiniſter motions.

SECT. IV.

Of the birds.

IN deſcribing the more curious BIRDS, we may add, to the *eagle kind*, the *karaburno*, which is of the bigneſs of our *buzzard*; with a black bill, red *iris*, yellow ſhort feet, the back of an aſh or ſordid blue colour, the pinions of the wings black, the belly and tail whitiſh.

The karaburno.

The red legged crow, *or* pyrrhocorax. The *graab el Saharah*, or *crow of the deſert*, is ſomewhat bigger than our *raven*; and from the redneſs of the feet and bill, may demand the title of *coracias major*, or *the larger coracias* or *pyrrhocorax*.

The emſeeſy. The *emſeeſy*, or *ox bird*, is as large as the *curlew*, being all over of a milk white colour, except the bill and the legs, which are of a fine red. It generally feeds, after cattle, in the meadows, which makes the fleſh of it unſavory, and ſoon to corrupt. It reſembles the *crow* in habit and ſhape of body.

The boo-onk. The *boo-onk*, or *long-neck*, is of the *bittern kind*, ſomewhat leſs than the *lapwing*. The neck, the breaſt, and the belly are of a light yellow; but the back and the upper part of the wings are of a jett black. The tail is ſhort; the feathers of the neck long, and ſtreaked either with white, or with a light yellow. The bill, which is three inches long, is green, in faſhion like to the *ſtork's*; and the legs, which are ſhort and ſlender, are of the ſame colour. In walking and ſearching for food, it throws out its neck to the length of ſeven or eight inches, from whence the *Arabs* call it *boo-onk, the father of the neck*, or the *long neck*.

The burourou. The *burourou*, one of the larger *ſpecies* of the *horned owls*, is ſpotted like the *Norwegian*. It generally frequents the *deſert*, like the *graab el Sahara*; and when it appears to the northward, among the towns and villages, it is fancied to portend ſome direful infectious diſtemper. Whilſt the *plague* raged lately at *Algiers*, ſeveral of theſe birds were ſeen to hover about and pitch upon the houſes, particularly where the inhabitants were infected; drawn thither, no doubt, by the contagious ſmell: but as ſoon as the diſtemper was over, they diſappeared, and retired again into the *Sahara*.

The yarourou. The *yarourou* or *canis ſylveſtris*, as that *Syriac* word is commonly interpreted, and particularly taken notice of by Dr. *Pocock*, in his

Comment

Hou-baara
Penna Marina
P.191.
Rhaad, p.184.
Common Barbary Locust
P.187
p.184.
Kittanvia
p.182.
Boo-onk

Comment upon *Mic.* i. 8. is nearly allied in name to the *burourou*, though we cannot here draw any conſequence from it; in as much as the *yarourou* was not a bird, but a quadruped, viz. the *jackall*; as *tanin*, the original word, which we render *dragon*, is there interpreted. Vid. not. 2. p. 174.

The *ſhaga-rag* is of the bigneſs and ſhape of a *jay*, though with a ſmaller bill, and ſhorter legs. The back is browniſh; the head, neck, and belly of a light green; and upon the wings and tail there are ſeveral ſpots or ringlets of a deep blue. It makes a ſqualling noiſe, and builds in the banks of the *Shelliff*, *Bocherak*, and other rivers. *Shagarag*, by a ſmall tranſmutation of letters, is the ſame name with *ſharakrak*, or *ſhakarak* of the *Arabian* authors; and with the שרקרק *ſharakrak* of the *Talmudiſts*; ſo called from שרק *ſharak*, to *ſquall*. It was, probably, in conformity to this quality, that *Buxtorf* has interpreted *ſharakrak*, the *merops* or *bee-eater*; a bird very common all over *Barbary* and the *Levant*; which flies in flocks, and, in the heat of the day, makes a ſqualling noiſe, though not ſo ſhrill as the *ſhagarag*. *Jonathan*, the *Syriac verſion*, and the *Talmudiſts*, explain רחם *racham*, *Lev.* xi. 18. or רחמה *rachamah*, *Deut.* xiv. 17. by *ſharakrak*, or *ſarakreka*, in the *Syriac*; which being more regarded, or ſuppoſed perhaps to be better underſtood by *Munſter* and *Deodatus*, than the original word *rachamah*, induced them to tranſlate it *pica*, (the *magpye*, or rather the *jay*,) with which our *ſhaga-rag* has no ſmall affinity, both in voice and plumage. I ſhall, in another place, take notice of the *rachamah*, which was ſo little known to the *Jewiſh* writers, that the learned *Bochart*, (*Hieroz.* l. ii. c. 25.) after acknowledging *his own* ignorance of it, complains likewiſe of *theirs*, in this ingenious and juſt remark: *Avem illam*, viz. *rachamah*, ſays he, *definire non potuerunt viri, tam imperiti rerum naturæ, quam periti vocem interpretes.* *The* ſhagarag.

The *houbaara*, or *houbaary*, is of the ſize of a *capon*, but with a longer body. It feeds upon ſhrubs and inſects, like the *graab*. *el Sahara*; and frequents, in like manner, the *deſert*; for which reaſon, perhaps, in the *Arabian* verſion [ינשוף] (or the *owl*, as we render it) *yanſouph*, *Iſa.* xxxiv. 11. is interpreted the *houbary*. This bird is of a light dun or yellowiſh colour, marked all over with little brown taches; whilſt the larger feathers of the wing are black, with each of them a white ſpot near the middle. The feathers of the neck are whitiſh, with black ſtreaks; but are chiefly remarkable for their length, and for being erected, as in the *ruff* and *dung-hill cock*, whenever it is attacked or provoked. The bill is flat like the *ſtarling's*, nearly an inch and a half long; and the legs agree in ſhape, *The* houbaara, *or* houbaary.

and in the want of the hinder toe, with the *buſtard's*. The gall and the contents of the ſtomach, are in great eſteem for ſore eyes, and have therefore been ſometimes ſold at a great price. Nothing ſurely can be more entertaining than the ſight of the *houbaara* when it is purſued by the *hawk*, and to obſerve the great variety of flights and ſtratagems which it is obliged to uſe in order to eſcape. The *Arabian* authors [5] add, that upon theſe occaſions it endeavours to ſquirt its dung into the hawk's eyes, in order to blind them: but it may drop it rather, as the *ſtrunt-bird* is known to do, out of fear. *Golius* and *Bochart* likewiſe miſinterpret *hoobaara*, in calling it the *buſtard*: which agrees indeed in colour, in habit of body, and number of toes, with the *hoobaara*, but differs in being at leaſt of twice the bigneſs.

The rhaad, *or* ſaf-ſaf.

The *rhaad* or *ſaf-ſaf*, which is a granivorous and gregarious bird, wants alſo the hinder toe. There are two *ſpecies* of it; the ſmaller being of the ſize of an ordinary *pullet*, whereas the larger is near as big as the *hoobaara*, and differs alſo from the leſſer in having a black head, with a tuft of dark blue feathers immediately below it. The belly of them both is white, the back and the wings are of a buff colour, ſpotted with brown; the tail is lighter, and marked all along with black tranſverſe ſtreaks. The beak and the legs are ſtronger than in birds of the *partridge kind*. *Rhaad* [6], which denotes *thunder*, in the language of this country, is ſuppoſed to be a name that has been given to it, from the noiſe that it makes in ſpringing from the ground; as *ſaf-ſaf* [7], the other name, very naturally expreſſes the beating of the air, when it is got upon the wing.

The kitawiah, *or* lagopus Africanus.

The *kitawiah*, or *African lagopus* (as we may call it) is another bird of the gregarious and granivorous kind, with ſhort feathered feet, which likewiſe wants the hinder toe. It frequents the moſt barren, as the *rhaad* does the more fertile parts of theſe countries; and is, in ſize and habit of body, like the *dove*. The back, or upper part of it, is of a livid colour, with dark ſpots; the belly is blackiſh; and, upon the throat, there is the figure of a *creſcent*, of a beautiful yellow. Each feather in the tail is tipped with a white ſpot, whilſt that in the middle is long and pointed, as in the *merops*. The fleſh of this beautiful bird is like that of the *rhaad*, viz. red upon

[5] *Boch. Hieroz.* part. poſt.

[6] Sc. a رهض *rahad*, tonuit.

[7] صفصف *tranſlated* paſſer *only by* Golius, *is not unlike in name to the* שחף ſachaph *or* ſah-haph, *which*, Lev. xi. 16. *we render the* cuckow.

the

the breaſt, and white in the legs; wherewith it agrees further, in being not only of an agreeable taſte, but of an eaſy digeſtion.

The *Barbary partridge* is the ſame with the greater or red-legged *ſpecies*, that is already known and deſcribed by Mr. *Ray*: and beſides the *quail*, which is common to moſt countries, there is one here of a lighter colour, that wants the hinder toe. Both of them are *birds of paſſage*; as is likewiſe the *woodcock*, which makes its firſt appearance in *October*, and continues till the *March* following, as in *Europe*. The *Africans* call the latter (from the largeneſs, I ſuppoſe, of its head) *the aſs of the partridges*. Partridge, *red legged* quail.

Beſides ſuch of the *web-footed water fowl* as are common in *England*, I have ſeen ſeveral other *ſpecies*, beautifully diſtinguiſhed by their differently figured bills and plumage, which it would be too tedious to enumerate. They are all of them called by the general name of *brak*; which word *Golius* and others have made to denote ſome particular *ſpecies* only of the *duck-kind*, contrary to the received acceptation of it in this country, for the *family* in general.

Among the *leſſer birds* we may place a *ſpecies* of the *thruſh kind*, not inferior to the *American* birds in the richneſs of its plumage. The head, neck, and back are of a fine light green, the wings of a lark colour, the breaſt white and ſpotted like the *thruſh's*, the *uropygium*, or rump, of an elegant yellow, and the extremity of the feathers upon the tail and wings were tipped with the like colour. If we except the feet, which are ſhorter and ſtronger, it agrees, in the faſhion of the bill, and in the whole habit of body, with the *thruſh*. This bird is not very common, and appears only in the *ſummer months*, when *figs* are in ſeaſon. The green thruſh.

To the *little thick billed birds*, we may add the *Capſa ſparrow*, which is as big as the common *houſe ſparrow*, and as often ſeen upon the houſes in the *date villages*, to the weſtward of the *Lake of Marks*, as the *common ſparrow* is in other places. It is all over of a lark colour, excepting the breaſt, which is ſomewhat lighter, and ſhines like the *pigeon's*. This bird has an exceedingly ſweet and melodious note, much preferable to that of the *Canary bird*, or *nightingale*. Several attempts have been made to bring it to *Kairwan*, and other places to the northward; but it was always found to be of ſo delicate and peculiar a nature, that it immediately languiſhed and pined away upon changing the climate. The Capſa ſparrow.

SECT. V.

Of the inſects; particularly the locuſt.

INSECTS, and VOLATILES under that denomination, are more numerous than curious. *Butterflies*, *adderbolts*, *beetles*, &c. are in ſuch a variety of ſhapes, and luxuriancy of colours, that it would be too tedious to enumerate them all. A ſpecies or two of each ſort may be ſufficient.

The lappet butterfly. The moſt curious *ſpecies* of the *butterfly kind*, is near four inches from one tip of the wing to the other, being all over very beautifully ſtreaked with murrey and yellow. Yet the edges of the lower wings are to be excepted, which being indented, and ending in a narrow ſtrip or lappet of an inch long, are very elegantly bordered with yellow. Near the tail there is a ſpot of a carnation colour.

The libellæ. The rareſt *ſpecies* of the *libellæ* or *adderbolts*, is one of three inches and a half long, broad tailed, of a ruſty colour, with bright ſpotted wings. There is another of the ſame ſize, but of a more cylindrical body, differing little in colour from the common *locuſt*.

The unicorn beetle. The leaſt frequent of the *beetle kind*, is a *ſpecies* with one horn, of the colour and ſize of a cheſnut. The head is notched round, or indented, and the feet are broad like thoſe of the *gryllo-talpa's*. The leſſer *naſicornes* are every where met with, as alſo a diverſity of *elaſtic beetles*.

The cicade, or τέτλιγξ. In the hotter months of the ſummer, eſpecially from mid-day to the middle of the afternoon, the *cicada*, τέτλιγξ, or *graſhopper*, as we falſly tranſlate it, is perpetually ſtunning our ears with its moſt exceſſively ſhrill and ungrateful noiſe. It is in this reſpect the moſt troubleſome and impertinent of inſects, perching upon a twig, and ſqualling ſometimes two or three hours without ceaſing; thereby too often diſturbing the ſtudies, or the ſhort repoſe that is frequently indulged, in theſe hot climates, at thoſe hours. The τέτλιγξ of the *Greeks* muſt have had a quite different voice, more ſoft ſurely and melodious; otherwiſe the *fine orators of Homer*[9], who are compared to it, can be looked upon no better than ſo many loud, loquacious ſcolds.

[9] ——ἀγορηταὶ
Ἐθλοί, τετλίγεσσιν ἐοικότες, οἵτε καθ' ὕλην
Δένδρεῳ ἐφεζόμενοι, ὄπα λειριόεσσαν ἱεῖσι.

Il. γ. 150.

To

To that *ſpecies* of *locuſts*, which are called *mantes* by the naturaliſts, I am to add one of three inches long, of a brown colour, with the fore legs armed with ſtrong horny claws. There is another of the ſame ſize of the cucullated kind, which hath the upper wings ſtreaked with a light green, and the membranaceous ones finely chequered with fleſh, brown, and ſcarlet colours: beſides a third *ſpecies*, of two inches long, with elegant green wings. But the chief characteriſtics of the latter, are two *antennæ*, which project, like a couple of feathers, from the forehead. *The* mantes.

I never obſerved the *mantes* to be gregarious; but the *locuſts*, properly ſo called, which are ſo frequently mentioned by ſacred as well as prophane writers, are ſometimes ſo beyond expreſſion. Thoſe which I ſaw, *ann.* 1724 and 1725, were much bigger than our common *graſshoppers*, and had brown ſpotted wings, with legs and bodies of a bright yellow. Their firſt appearance was towards the latter end of *March*, the wind having been for ſome time from the ſouth. In the middle of *April* their numbers were ſo vaſtly increaſed, that in the heat of the day, they formed themſelves into large and numerous ſwarms, flew in the air like a ſucceſſion of clouds; and, as the prophet *Joel* (ii. 10.) expreſſes it, they *darkened the ſun*. When the wind blew briſkly, ſo that theſe ſwarms were crowded by others, or thrown one upon another, we had a lively idea of that compariſon of the *Pſalmiſt*, (*Pſ.* cix. 23.) of being *toſſed up and down as the locuſt*. In the month of *May*, when the ovaries of thoſe inſects were ripe and turgid, each of theſe *ſwarms* began gradually to diſappear, and retired into the *Mettijiah*, and other adjacent plains, where they depoſited their eggs. Theſe were no ſooner hatched, in *June*, than each of the broods collected itſelf into a compact body, of a furlong or more in ſquare; and marching afterwards directly forward towards the ſea, they let nothing eſcape them; eating up every thing that was green and juicy; not only the leſſer kinds of vegetables, but the *vine* likewiſe, the *fig-tree*, the *pomegranate*, the *palm*, and the *apple-tree*; *even all the trees of the field*, *Joel* i. 12. In doing which, *they kept their ranks, like men of war*; climbing over, as they advanced, every tree or wall that was in their way; nay, they entered into our very houſes and bedchambers, like *ſo many thieves*. The inhabitants, to ſtop their progreſs, made a variety of pits and trenches, all over their fields and gardens, which they filled with water; or elſe they heaped up therein heath, ſtubble, and ſuch like combuſtible matter, which were ſeverally ſet on fire upon the approach of the *locuſts*. But this was all to no purpoſe; for the trenches were quickly filled up, and the fires *The* locuſts.

extinguiſhed by infinite ſwarms ſucceeding one another; whilſt the front was regardleſs of danger, and the rear preſſed on ſo cloſe, that a retreat was altogether impoſſible. A day or two after one of theſe broods was in motion, others were already hatched to march and glean after them, gnawing off the very bark, and the young branches of ſuch trees, as had before eſcaped with the loſs only of their fruit and foliage. So juſtly have they been compared by the prophet *Joel*, ii. 3. to *a great army*; who further obſerves, that *the land is as the garden of Eden before them, and behind them a deſolate wilderneſs.*

Having lived near a month in this manner, (like a μοριόσομον ξίφος [1], or *ſword with ten thouſand edges*, to which they have been compared) upon the ruin and deſtruction of every vegetable ſubſtance that came in their way, they arrived at their full growth, and threw off their *nympha-ſtate*, by caſting their outward ſkin. To prepare themſelves for this change, they clung by their hinder feet to ſome buſh, twig, or corner of a ſtone; and immediately, by uſing an undulating motion, their heads would firſt break out, and then the reſt of their bodies. The whole transformation was performed in ſeven or eight minutes; after which they lay for a ſmall time in a torpid and ſeemingly in a languiſhing condition; but as ſoon as the ſun and the air had hardened their wings, by drying up the moiſture that remained upon them, after caſting their ſloughs, they reaſſumed their former voracity, with an addition both of ſtrength and agility. Yet they continued not long in this ſtate, before they were entirely diſperſed, as their parents were before, after they had laid their eggs; and as the direction of the marches and flights of them both was always to the northward, and not having ſtrength, as they have ſometimes had, to reach the oppoſite ſhores of *Italy*, *France*, or *Spain*, it is probable they periſhed in the ſea: a grave, which, according to theſe people, they have in common with other winged creatures. The *locuſt*, I conjecture, was the *noiſome beaſt*, or *the pernicious deſtructive animal*, as the original words may be interpreted, which, with the *ſword*, the *famine*, and the *peſtilence*, made the *four ſore judgments* that were threatened againſt *Jeruſalem*, Ez. xiv. 21. The *Jews* were allowed to eat them; and indeed, when ſprinkled with ſalt, and fried, they are not unlike, in taſte, to our freſh-water *cray-fiſh*. The *Acridophagi* [2], no doubt, were fond of eating them; inſomuch as they received their name from thence.

The locuſts *good to eat.*

[1] *Piſidas* apud *Boch. Hieroz.* par. ii. p. 441.

[2] *Agatharcides* deſcribes theſe people to be βραχύτεροι τῶν λοιπῶν, ἰσχνοὶ δὲ τοῖς εἴδεσι, μέλανες δὲ ἐξαισίως.

Ludol-

Ludolphus [3] has endeavoured to prove, that the שלוים *(ſhellowim*, or *quails*, as we render the word) which the *Iſraelites* fed upon in the wilderneſs [4], were a *ſpecies* only of *locuſts*. The ſame opinion is embraced by the learned *Biſhop of Clogher*, *(Chronol.* p. 379.) who urges, in defence of it, *Wiſd.* xvi. 3. where the food of the *Iſraelites*, (or *the things that were ſent*, τὰ ἐπαπεσταλμένα,) there ſuppoſed to be referred to, is ſaid to have had εἰδέχθειαν, an *ugly*, odious or diſagreeable *ſight* or appearance: an expreſſion, ſays he, by no means applicable to the *quail*, which is a beautiful bird, but very much ſo to a *locuſt*. But, not to diſpute whether any of God's creatures can be properly called *ugly*, the *ugly ſight* there recorded refers to the *frogs*, *lice*, *&c. that were ſent* among the *Egyptians*; as will appear by comparing the different caſes and afflictions of the *Egyptians* and *Iſraelites*, which are all along deſcribed, in contraſt with each other, throughout the context: *they* eſpecially who are ſpoken of ℣ 3. being no other than the *Egyptians*. Moreover, the *quails* (ὀρτυγομήτρα, or *land rails*, birds of the fineſt taſte) are particularly mentioned, *ver.* 2. to have been their food; and alſo *chap.* xix. *ver.* 12. where *quails* (ὀρτυγομήτρα) are ſaid to have *come up unto them from the ſea for their contentment*, or comfort. And beſides, the *H. Pſalmiſt*, in deſcribing this particular food of the *Iſraelites* (or the *ſhellowim)* by calling them *feathered fowls* (which the *locuſts* certainly are not, having only membranaceous wings) entirely confutes all ſuppoſitions of this kind; as indeed the admitting of them would be to confound all Scripture names; it would be to make *arbah* (as the *locuſts* are always called) and *ſhellowim*, (names undoubtedly very different) to be one and the ſame.

Neither has any authority been hitherto produced for taking ἀκρίδες, according to the *Greek* appellation, for the fruit of the *locuſt tree*, or the *tops of plants* [5]; the name itſelf being rather derived from the deſire or appetite which this *inſect* has, in particular, of living upon ſuch food [6]. And, beſides, the ἀκρίδες deſcribed by

Ακρίδες *not the tops of plants.*

[3] Viz. in *Comment. Hiſt. Æthiopic.* p. 185, &c.

[4] *Exod.* x. 13. *Numb.* xi. 31.

[5] In hanc ſententiam (ſc. quod ἀκρίδες erant ἀκρόδρυα vel ἄκρα δένδρων vel ἀκρέμονες, ſive ἀκρεμόναλα, *i. e.* arborum, vel herbarum ſummitates) propenderunt *Athanaſ. Iſid. Euthym. Theophyl. &c.* Vid. *Pol. Synop.* in *Mat.* iii. 4. & *Boch. Hieroz.* l. iv. cap. 7.

[6] Ακρὶς ἀπὸ τὸ ἄκρας τῶν ἀσταχύων ἢ τῶν φύλλων νέμεσθαι. Etymolog. Magn. جراد Je-rad, *the* Arabic *name for theſe inſects is derived from* جرد avulſit, detraxit: *ut folia de ramis*, *&c.* vid. *Gol. in voce.*

Ariſtotle[7] and other *hiſtorians*, are the *locuſts* I am now ſpeaking of: the LXXII. likewiſe always interpret [ארבה] *arbah*, by the ſame word; conſequently the writers of the *New Teſtament* may be ſuppoſed to have taken it in the ſame ſignification. The ἀκρίδες then, which *St. John Baptiſt* fed upon in the wilderneſs, were properly *locuſts*; and provided they appeared in the *Holy Land*, during the ſpring, as they did in *Barbary*, it may be preſumed that *St. John* entered upon *his miſſion*, and that *the day of his ſhewing himſelf unto Iſrael*, Luke i. 20. was at that ſeaſon.

but inſects.

SECT. VI.

Of the ſcorpion and phalangium.

THE ACKRAB, or SCORPION, in conſideration of its noxious qualities, may claim the next place after the *locuſt*. Some of the *ſpecies* are long and narrow; others are of a rounder ſhape, and larger; with tails conſiſting of ſix joints. I never obſerved any that had ſeven, according to what has been aſſerted by ſome ancient authors[8]. Thoſe to the northward of *Mount Atlas* are not very hurtful; for the ſting, being only attended with a ſlight fever, the application of a little *Venice treacle* quickly aſſwages the pain. But the *ſcorpions* of *Gætulia*, and moſt other parts of the *Sahara*, as they are generally larger, and of a darker complexion, ſo their venom is proportionably malignant, and frequently attended with death. I had once ſent me a female *ſcorpion*, which, as it is a viviparous animal, had juſt brought forth her young, about twenty in number, each of them ſcarce ſo large as a grain of *barley*.

The boola-kaz, *or* rhax.

Of the ſame virulent nature with the *ſcorpion*, is the bite of the *boola-kaz*; a *phalangium* of the *Sahara*, the *rhax* probably which *Ælian* (l. iii. c. 136.) obſerves to be an animal of theſe parts. It is computed, that twenty or thirty perſons die every year, by the hurt received from this animal and the *leffah*.

The remedy againſt the ſting of theſe animals.

The method of curing the bite or ſting of theſe venomous creatures, is either immediately to burn, or to make a deep inciſion upon the wounded part, or elſe to cut out the contiguous fleſh. Sometimes alſo the patient lies buried all over, excepting his head, in the hot burning ſands, or elſe in pits dug and heated for the

[7] *Ariſt. Hiſt. Animal.* l. v. cap. 28.

[8] Conſtat & ſeptena caudæ internodia ſæviora eſſe. *Plin.* l. xi. cap. 25. de *ſcorpionibus*. Σκορπίων δὲ, ἡ πολιῶν ἡ ἀπλέρων λέγεται πλῆθος, μεγέθει δὲ ἐπὶ σφονδύλων. *Strab.* l. xvii. Καί πᾳ ἐπὶ ἔχων σφονδύλᾳς ὤφθη τις. *Ælian. Hiſt. Anim.* l. vi. cap. 20.

purpoſe;

purpoſe; in order, no doubt, to obtain the like copious *perſpiration* that is excited by *dancing*[9] in thoſe that are bitten by the *tarantula*. But when no great danger is apprehended, then they apply hot aſhes only, or the powder of *alhenna*, with two or three thin ſlices of an onion, by way of *cataplaſm*. I never heard that *oil olive*, which they have always at hand, was ever made uſe of; which, being rubbed warm upon the wound, has been lately accounted a *ſpecific* remedy, particularly, againſt the bite of the *viper*. It was one[1] of the twenty remarkable edicts that were given out by the Emp. *Claudius* in one day, that no other remedy ſhould be uſed in the bite of a *viper*, than the juice of the *yew-tree* or *taxus*.

SECT. VII.

Of the fiſh.

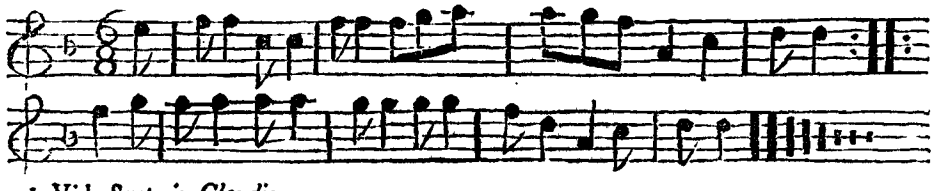
THERE are few ſpecies of FISH to be met with in theſe ſeas or rivers, but what have been long ago deſcribed by *Rondeletius*, and ſtill continue to be taken as well on this as on the other ſide of the *Mediterranean*; a catalogue of which is placed among the COLLECTANEA. To theſe we may add a firm and well-taſted *barbel*, which, with the *eel*, is common to moſt of thoſe rivers. The *barbel* has two appendages on the lower jaw. In the warm fountain at *Capſa*, we find a beautiful little *perch*, with chequered fins, and a turned-up noſe: but this is a coarſe fiſh, of no delicate flavour, though we may conſider it as a curioſity, in living ſo far from the ſea, and in being, as far as I could be informed, the only fiſh appertaining to the many rivulets of theſe inland parts of *Africa*. The fiſhermen find, ſometimes, in drawing and clearing their nets, the *penna marina* or *ſea-feather*; which, in the night-time particularly, is ſo remarkably glowing and luminous, as to afford light enough to diſcover the quantity and ſize of the fiſh that are incloſed along with it in the ſame net. I have ſeen, more than once,

The barbel.

The perch.

The ſea-feather.

[9] *Matthiolus*, in his annotations upon *Dioſcorides*, l. ii. cap. 77. *de araneo*, vouches for the fact, (and acquaints us that he had ſeen it) quod *equidem atteſtari poſſum*. The following *air*, called the *tarentella*, is one of thoſe which the *Apulians* are ſaid to make uſe of on theſe occaſions.



[1] Vid. *Suet. in Claudio.*

large

The polypus. large ſhoals of a ſmall circular, flat *polypus*, with a thin ſemicircular ridge obliquely croſſing the back of it. This, which is the *urtica marina ſoluta*, and the *veletta* of *F. Columna*, is hung all over with little feet or ſuckers; and is greedily purſued by the *tunny* and *porpoiſe*. A few years ago, an *orca* or *toothed whale*, ſixty foot long, was ſtranded under the walls of *Algiers*; which was looked upon as ſo extraordinary an appearance, that the *Algerines* were apprehenſive it portended ſome direful event to their polity and government.

The orca, *or* toothed whale.

Cruſtaceous fiſh. Among the fiſh that are called CRUSTACEOUS, the firſt place is to be given to the *lobſter*, though it is in no great plenty upon the coaſt of *Barbary:* whereas *ſhrimps* and *prawns*, a ſmall thin-ſhelled *crab*, like the *broad-footed* one of *Rondeletius*, the *locuſta*, vulgarly called the *long oyſter*, together with the *ſquilla lata*, or *ſea cray-fiſh* of the ſame author, are every day brought to the market. Theſe are preferred to the *lobſter* for firmneſs and elegancy of taſte.

Lobſters. Shrimps. Prawns.

Different ſorts of echini. The *echini*, or *ſea-eggs*, are more remarkable for their number than their variety. I have ſeen no more than three *ſpecies*; one of which is of the *pentaphylloid* or *ſpatagus* kind, being very beautiful to look upon, but of no uſe. Each of the others has five ſutures, accompanied with ſeveral concentric rows of little knobs, ſupporting ſo many prickles or *aculei*. The roe, which lies in the inſide of them, between the ſutures, and is the only part that is eatable, is turgid and in perfection about the full of the moon. After being tempered and ſeaſoned with pepper and vinegar, it is looked upon as no ſmall dainty; of which I have often taſted.

Shell-fiſh. Neither is there any great plenty or variety of SHELL-FISH, as will appear from the *catalogue* of them, which is inſerted among the COLLECTANEA. The *exuviæ*, indeed, of a few *ſpecies* of *whilks* and *ſlithers*; of the *ſea-ear*; of the *ſpondylus*; and of a *ſmooth ſhallow chama*, are what we commonly ſee lying upon the ſhore: whilſt the *greater whilk* or *buccinum*, eight or ten inches long; a long *narrow pectunculus*; the *muſcle* of *Matthiolus*; the *concha Veneris*; a large thin *ampullaceous whilk*, the 18th ſpecies of *Liſter*; with the *long-noſed muricated one*, the 20th of the ſame author, may be reckoned among the rarities. But the *ſolitanna*, which, as *Varro* tells us, (l. xiii. c. 14. *De re ruſtica,*) contained twelve gallons, would be undoubtedly the greateſt curioſity, and the very *princeſs* of the *teſtaceous* kind, provided it ſtill continued to be a native of theſe ſeas.

Oyſters. *Tunis* was formerly well ſupplied with *oyſters*, from the *haven* of *Bizerta*; but, when I was there, ſome copious rains [2], with the uſual tor-

[2] Nimirum tenuitas aquæ non ſufficit eorum reſpirationi.—Atque eadem cauſa eſt, quod in *Ponto*, cujus oræ crebris fluminum oſtiis alluuntur, non ſunt teſtacea, niſi quibuſdam in locis pauca—Etiam in æſtuariis *Venetis* obſervatur teſtacea interire, quando

rents,

rents conſequent thereupon, which fell into it from the neighbouring lake, were ſuppoſed, by making the water too freſh, to have diminiſhed the breed. The bottoms likewiſe, not only of the ſeveral coaſting veſſels of *Algiers*, but of others that have continued any time in the harbour, were frequently covered with *oiſters*; yet no *banks* of them could ever be diſcovered, though they have been carefully ſought after. As this coaſt likewiſe is no way remarkable for banks of ſand, the *cockle* is a great rarity; but *muſcles* are every where as common, as they are large and good; neither are they attended, as thoſe of our iſland frequently are, with *crabs* or *cancelli*. The ſubmarine rocks of theſe coaſts, particularly near *Cape Zibeeb* and *Port Farina*, are ſometimes very pregnant with another *ſpecies* of *muſcle*, of a more delicious taſte, and cylindrical ſhape, which is called by ſome *naturaliſts*, *dactylus*[3], from being in the ſhape of a *finger* or *date*; and by others *pholus* or *pholis*, from (φωλεύειν) *lying hid* in the rocks. They are found of different and intermediate ſizes, from half an inch to two or three inches in length; lying very near or within an inch or two of each other, with ſometimes a ſmall duct of communication, rarely bigger than a briſtle, betwixt them. The cavities they lie in, are as exactly fitted to them as if they had been caſt in ſo many moulds; which they ſeem likewiſe to have a power of gradually inlarging, according to the different periods of their growth. But in what manner this is effected, how they are nouriſhed and propagated, with a great many other circumſtances relating to their *animal œconomy*, remains at preſent among the ſecrets of nature.

The muſcles.

As the *oſtrich* will be taken notice of in the *natural hiſtory* of *Arabia Petræa*, theſe are all the obſervations which I have to offer, with regard to the animals of theſe kingdoms. In the courſe of which, ſome perhaps might expect to be entertained with the deſcription of ſtrange and wonderful objects, ſuch as *Africa* has been commonly ſuppoſed to produce. But the natural and ordinary courſe of things is much the ſame in *Barbary* as in other places; each *ſpecies* keeping inviolably to itſelf. For if we except the *mule* and the *kumrah*, (procreated from animals under the direction of mankind, and therefore not properly left to themſelves) few, I ſay, if any other inſtances can be urged in favour of the old obſervation, THAT AFRICA IS ALWAYS PRODUCING SOME NEW MONSTER[4].

Africa *produceth no monſters.*

immodicis pluviis paluſtris ſalſedo diluitur. *J. Grand. De verit. diluvii, &c.* p. 66. *C. Langii Method. Teſtac.* p. 7. in præfat.

[3] *Dactylus* non a digitorum forma, ſed a *Syriaca* voce דקלא vel דגלתא quæ palmam ejuſque fructum ſignificat. Vid. *Hilleri Hieroph.*

[4] Λέγεται δέ τις παροιμία ὅτι ἀεὶ φέρει τι Λιβύη καινόν. *Ariſt. Hiſt. Anim.* l. viii. cap. 28. Ideo (ſc. inopia aquarum ad paucos amnes congregantibus ſe feris)

CHAP. III.

Of their arts, habits, cuſtoms, &c.

SECT. I.

Of the ſtate of learning in Barbary; *with the method of teaching their children.*

Arts and ſciences little known or encouraged.

THE liberal arts and ſciences among the *Mahometans* continue to be, as they have been for many ages, in a low ſtate and condition. *Philoſophy*, *mathematics*, and the knowledge of *phyſic* and *medicine*, which, a few centuries ago, they had almoſt intirely to themſelves, are at preſent very little known or ſtudied. The roving and unſettled life of the *Arabs*, and the perpetual grievances which the *Moors* meet with from the *Turks*, will not permit either of them to enjoy that liberty, quiet, and ſecurity, which have at all times given birth and encouragement to *learning*. As for the *Turks*, they are generally of ſuch turbulent and reſtleſs diſpoſitions, or elſe engage themſelves ſo deep in trade and in the improvement of their fortunes, that they have no taſte at all for it; being wonderfully aſtoniſhed, as they have often told me, how the *Chriſtians* can take delight, or ſpend ſo much time and money in ſuch empty amuſements, as ſtudy and ſpeculation.

Their method of education.

When the *Mooriſh* and *Turkiſh* boys (for there is little or no education among the *Bedoweens)* are about ſix years old, they are ſent to ſchool, where they learn to read, to write, and repeat their *leſſons* at the ſame time. They make no uſe of paper; but each boy writes upon a thin ſmooth board, ſlightly daubed over with whiting, which may be wiped off or renewed at pleaſure. Such probably, for the *Jewiſh* children uſe the ſame, was the πινακίδιον, the *little board* or *writing table* (as we render it, *Luke* i. 63.) that *was called for by Zacharias*. After they have made ſome progreſs in the *Koran*, (which is the principal book that is taught there) they are initiated, with the like care, in the ſeveral ceremonies and devotions of their religion; the *maſter* receiving from each boy, for his trouble and attendance, about a penny a week. When a boy has laudably acquitted himſelf in any branch of theſe inſtructions,

multiformes ibi animalium partus: varie fœminis cujuſque generis mares aut vi aut voluptate miſcente. Unde etiam vulgare *Græciæ* dictum, SEMPER ALIQUID NOVI AFRICAM AFFERRE. *Plin.* l. viii. cap. 16.

he

he is forthwith decked out in the moſt ſumptuous apparel, and, being mounted upon a horſe, richly capariſoned, is conducted through the ſtreets, by his ſchoolfellows, with loud acclamations; whilſt, in the mean time, his friends and relations are met together to congratulate his parents, *(omnes omnia bona dicere, &c.)* and to load the young ſcholar with gifts. After the boys have been thus employed for three or four years, they learn ſome trade, or elſe are inrolled in the army; in attending which occupations, there are very few of them who retain what they learned in their youth, except the *ſanjacktars*, i. e. the *ſecretaries at war*, and thoſe who are employed in collecting the tribute.

Few books read except the Koran.

If we except the *Koran*, and ſome enthuſiaſtic comments upon it, few books are read or inquired after by thoſe few perſons of riper years, who have either time or leiſure for ſtudy and contemplation. At preſent, all that variety of *learning* which they formerly either invented themſelves, or adopted into their own language, may be reduced to a few ſheets of blundering geography, or to ſome tireſome *memoirs* of the tranſactions of their own times: for ſuch branches of hiſtory as are older than the *Mahometan æra*, are a medley of *romance* and confuſion.

Their ignorance in mathematics, phyſic, &c.

Upon my arrival at *Algiers*, I made it my buſineſs to be acquainted with ſuch perſons, as had the character of being learned and curious; and though it is very difficult, (as well from their natural ſhyneſs to ſtrangers, as from a particular contempt they have for *Chriſtians,)* to cultivate with them any real friendſhip, yet, in a little time, I could find the chief *aſtronomer* (who has the ſuperintendance and regulation of the *hours of prayer)* had not *trigonometry* enough to project a *ſun-dial:* that the whole *art of navigation* (as it is practiſed by the corſairs of *Algiers* and *Tunis)* conſiſted in nothing more, than what is called the *pricking of a chart* and diſtinguiſhing the eight principal *points of the compaſs*. Even *chemiſtry*, formerly the favourite ſcience of theſe people, riſes no higher, than the making of *roſe-water*. I have rarely converſed with any of their *tibeebs*, i. e. *phyſicians*, who were acquainted with *Rhaſes*, *Averroës*, or others of their compatriots. The *Spaniſh edition* of *Dioſcorides* is chiefly ſtudied; though the figures of the plants and animals are more conſulted than the deſcriptions. The *dey's tibeeb* (the *e-mim* or *preſident of the phyſicians)* once aſked me, whether the *Chriſtians* had ſuch an author as *Boo-kratt*, i. e. *The father of Kratt* (ſo either out of ignorance or affectation they call *Hippocrates;)* adding, that he was the firſt of the *Arabian hackeems* or *doctors*, and lived a little before *Avicenna*.

No branch of learning ſtudied as a ſcience.

After this general account of the *ſtate of learning and education* in this country, it cannot be expected, that any branch either of ſpeculative

culative or practical knowledge ſhould be ſtudied properly as an art or ſcience. There are not indeed wanting ſeveral perſons who preſcribe in *phyſic*, play upon a variety of *muſical inſtruments*, and are concerned in other actions and performances, which ſeem at leaſt to ſuppoſe ſome ſkill in *nature* or *mathematics*. Yet all this is learnt merely by practice, long habit, and cuſtom, aſſiſted, for the moſt part, with great ſtrength of memory and quickneſs of invention. For no objection can be made againſt the natural parts and abilities of theſe people; which are certainly ſubtle and ingenious enough; only time, application, and encouragement are wanting to cultivate and improve them.

SECT. II.

Of their ſkill in phyſic or medicine.

The hiſtory of phyſic or medicine.

IN giving a more particular account of what arts and ſciences are ſtill remaining in *Barbary*, I ſhall begin with the *hiſtory of phyſic* or *medicine*. And here it is to be obſerved (for the want, no doubt, of proper perſons, duly and methodically bred up to theſe arts) that there are few, if any, of the more dangerous caſes and diſtempers, but ſuch as either prove mortal, or of a long continuance. It is to be obſerved likewiſe, that few perſons will admit either of advice or medicine, believing in ſtrict and abſolute predeſtination; whilſt others, who are leſs ſuperſtitious, prevent the aſſiſtance of both by their ill conduct and management; leaving all to the ſtrength of nature, or elſe to *magareah*, as they call charms and inchantments. The *hiſtory* therefore *of phyſic* will be expreſſed in a few lines: for if we except the following remedies, together with the conſtant reſort that is made to the *hammams*, in diſtempers of all qualities and complexions, there is little beſides of general uſe and eſtabliſhment.

Their remedies for the rheumatiſm, jaundice,

To begin then with *rheumatic* and *pleuritic* caſes; in which it is uſual to make ſeveral punctures upon the part affected with a red-hot iron. This operation is to be repeated according to the ſtrength of the patient, and the violence of the diſeaſe.

fevers,

A decoction of *ſandegourah*, as they name the *chamæpitys* or *ground-pine*; or elſe of the *globularia fruticoſa*, (*Phyt.* N° 110.) is the ordinary medicine for *fevers:* though I have known the common *ſcabious* of this country, (the *ſcabioſa Africana fruteſcens*, Par. Bat.) taken either as a ſallad or potherb, or elſe in a ſtrong decoction, to remove violent *tertian* and *quartan agues*.

A drachm

A drachm or two of the root of *round birthwort*, or *boruſtum*, according to their name, is an eſtabliſhed remedy for the *colick* and other *flatulent diſtempers:* as the root of *bookoka* or *ariſarum*, dried and powdered, is for the *ſtone* and *gravel*. I once knew above a pint of a gelatinous ſubſtance diſcharged by a young boy of our interpreter's, upon eating plentifully of the ordinary bread of the *bedoweens*, made of equal quantities of barley or wheat flour, and of the roots of *bookoka*, dried in the oven and powdered. flatulent diſtempers, ſtone,

One drachm of a dark-coloured *drop-ſtone*; or the like quantity of the powder of the *orobanche Mauritanica*, (*Phyt.* N° 104.) have been uſed with good ſucceſs in ſtopping inveterate *diarrhœas*. A decoction of *hanzœra* (*Phyt.* N° 68.) is eſteemed very prevalent in the *lues venerea*, and complaints of that claſs: which, by the frequent uſe made of the *hammams*, or by the warmth of the climate, or both, do not appear ſo virulent and ſtubborn here as in *Europe*. bloody flux,

Little elſe is obſerved in the management of the *ſmall-pox*, than to keep the patient moderately warm; and giving him now and then ſix or eight grains of *alkermes* in honey, to throw out the puſtules. They make uſe of freſh butter to hinder the pitting; and, to prevent the ulcers from falling upon the eyes, they keep the lids conſtantly tinged with *alkahol* or the *powder of lead ore*. *Inoculation* is performed by making a ſmall wound, upon the fleſhy part of the hand, betwixt the thumb and the fore-finger. The perſon who is to undergo the operation, receives the infection from ſome friend or neighbour, who has a favourable kind, and who is intreated to ſell two or three of his puſtules, for the ſame number of nuts, comfits, or ſuch like trifles. This they call the *purchaſing of the ſmall-pox*; and, I have been told, that among the *Jews*, the purchaſe alone, without inoculation, was a ſufficient preparative for the infection. However, *inoculation* is in no great repute in thoſe parts of *Barbary* or the *Levant* where I have been. Moſt people eſteem it to be a tempting of *providence*, and ſolliciting a diſtemper before nature may be diſpoſed or prepared to receive it. And accordingly they tell a number of ſtories to diſcourage the practice; particularly of a beautiful young lady, who, not to loſe too much of her beauty, purchaſed only a couple of puſtules. It happened indeed that ſhe had no more than were paid for; but the misfortune was, that they fell upon her eyes, and ſhe was blind by the experiment. ſmall-pox. *The* inoculation *of them diſcouraged.*

Clyſters are little known or made uſe of; probably from the too frequent want there would be of proper inſtruments, not ſo eaſily procured in theſe countries; or rather from ſome ſuppoſed breach of modeſty (in which they are very delicate) in applying them. The obſervation of a *Turkiſh* gentleman, who was violently afflicted with

the *head-ach*, was pertinent enough on this occaſion. Upon applying to an *Engliſh phyſician*, who was then at *Algiers*, and being ordered a *clyſter*, the *patient* abſolutely refuſed it, and exclaimed greatly againſt the ignorance of our *Engliſh tibeeb*, who fooliſhly imagined, *that ſo noble a part as the head could be in the leaſt influenced or corrected by the tail, the moſt ignoble, and at ſo great a diſtance.*

Medicines *for* gunſhot wounds. The *Arabs* attempt to heal all *ſimple* and *gunſhot wounds* by pouring freſh butter, almoſt boiling hot, into the part affected; and I have been credibly informed, that a great many perſons have been cured by this method.

Swellings *and* inflammations, For the aſſuaging of ſwellings, bruiſes, inflammations, and ailings of that kind, the leaves of the *prickly-pear*, roaſted a quarter of an hour in the aſhes, and applied as hot as poſſible to the part affected, are, in this climate, found to be very beneficial. They are noted alſo

boils, for ſuppurating and bringing *boils*, *plague-ſores*, and ſuch like *tumors* to maturity; I have likewiſe known them applied with ſucceſs, and without the leaſt ſuſpicion of having any repelling quality, in the

gout, *gout*.

ſlight wounds, In ſlight *wounds*, *bruiſes*, and *inflammations*; or elſe in order to harden and conſolidate the parts, ſome perſons take the powder of *alhennah*, (*Phyt.* N° 7.) and make it up, with warm water, into a *cataplaſm*. This, when applied, tinges the ſkin with a tawny orange colour, which continues for ſome months; and, what is more ſurpriſing, the tincture paſſes quickly into the blood, and, in one night's time, tinges the urine of a ſaffron colour.

green wounds, In *green wounds*, and ſome other of the above-mentioned caſes, the leaves likewiſe of *madra-mam*, as they call the *virga aurea minor foliis glutinoſis*, have a good effect; whilſt the root of *toufailet*, or *thapſia*, (*Phyt.* N° 250.) roaſted and applied hot to the hips, or

ſciatica. made up into an ointment, is reckoned a *ſpecific* remedy in the *ſciatica*.

No certain rule either in preſcribing or taking theſe medicines. Theſe are ſome of the principal *medicines*, or *douwas*, as they are called, that are made uſe of in this country: in the preſcribing or taking of which, they obſerve no uniform practice, nor exact proportion. For thoſe which regard external caſes, are ſometimes applied ſo ſparingly, as if it was indifferent, both to the *patient* and the *phyſician*, whether or no any benefit was intended by them: whilſt others, in the ſame caſe, act quite the contrary; ſuppoſing the larger the *cataplaſm*, the ſpeedier the cure. Neither is there much more caution uſed in ſuch medicines as are given inwardly. For a handful, at random, whether of dry or green herbs, is the common doſe; which, if taken in a decoction, they uſually pound firſt in a mortar, and then pour, at a venture, half a pint, a whole pint or more, of boiling-hot water

upon

upon it. Compound medicines are very rare. The *Moors* indeed pretend to have received ſeveral of them traditionally from their anceſtors; but the few ingredients, which the ſhops of their *tibeebs* are furniſhed with, to anſwer ſuch preſcriptions, the great reſervedneſs likewiſe which they ſhew, in converſing with them upon this ſubject, appear to be ſtrong ſuſpicions, that *they* are no better verſed in the *materia medica* than the *Arabs*. The only preſcription of this kind, that I have met with, is aſcribed to *Seedy Mahomet Zerôke*, a famous *Marabbutt*, who recommends it in this manner: *The lives of us all are in the hands of God, and when* IT IS WRITTEN, *we muſt die. However it has pleaſed God to ſave many perſons from the* PLAGUE, *by taking every morning, while the infection rages, one pill or two of the following compoſition*; *viz.* of *myrrh* 2 parts, *ſaffron* 1 part, *aloes* 2 parts, *ſyrop of myrtle berries* q. ſ. [5].

Seedy Mahomet Zerôke's *remedy againſt the plague.*

SECT. III.

Of their knowledge in mathematics.

NEITHER are theſe people much more converſant in any of the branches of *mathematics*. For, in the firſt place, they are altogether ſtrangers to thoſe that are ſpeculative and abſtracted. Even ſuch *quadrants*, *aſtrolabes*, and other *mathematical inſtruments* of their anceſtors, as have eſcaped the injuries of time, are looked upon rather as curioſities, than conſulted as uſeful inventions. Beſides ſeveral of theſe *quadrants*, deſigned chiefly for taking altitudes, I ſaw one at *Tozer* in, what we call, *Oughtred's projection*, well executed and of a foot radius. We are alſo ſometimes favoured with a ſight of their *kalendars*, one of which I have by me, (all of them likewiſe the works of former ages) wherein the *ſun's place*, the *ſemidiurnal* and *nocturnal arch*, the *length of the twilight*, with the ſeveral *hours of prayer* for each day in the month, are calculated to a minute, and beautifully inſerted in proper columns. But theſe again are as little conſulted as their inſtruments; for in caſe the cloudineſs of the weather will not permit them to adjuſt their ſmall and greater *hour-glaſſes*, to ſome inaccurate *meridian lines* made for that purpoſe, the times of devotion, which ſhould be punctual to a minute, are left intirely to the will and pleaſure of their *mwezzims* or *maedins*, i. e. to the *cryers*; no other methods being ſtudied for the menſuration of time; and *public clocks*,

Theſe people ſtrangers to mathematics,

and to the uſe of inſtruments, *&c.*

[5] This however was deſcribed long before by *Razi*, and known to all following *phyſicians*, under the name of *Pil. Ruſi ad peſtilentiam præcavendam*, *&c.* as a learned phyſician, among other critical remarks, has lately informed me.

from

from the great averſion perhaps which the *Mahometans* have to bells, not being allowed of.

Few perſons converſant in arithmetic.

Even the very firſt operations, either in *numeral arithmetic* or *algebra*, are not known to one perſon in twenty thouſand; notwithſtanding their forefathers, if we may judge from the name [6], ſeem to have been the inventors of the one, as they have given to all *Europe* the characters [7] of the other. However, the merchants, beſides being frequently very dextrous in the addition and ſubſtraction of large ſums by memory, have a ſingular method of numeration, by putting their hands into each other's ſleeve; and there, touching one another with this or that finger, or with ſuch a particular joint of it, (each of them denoting a determined ſum or number) will tranſact affairs of the greateſt value, without ſpeaking to one another, or letting the ſtanders by into the ſecret.

Yet ſtill, of a much more extraordinary nature, provided we could be equally aſſured of the truth of it, is the *knowledge* which the *thalebs* [8] are ſuppoſed to have *in numbers*. For they pretend to ſuch a powerful inſight into the nature and quality of them, that by differently joining and combining them, they can bring to light a variety of ſecrets; excite as well as break the force of *charms*; and perform a thouſand tricks of the like nature. The following *diagram*, or *net* (as in my *Arabic* MS [9]) called *haraz el mabarak*, or *the bleſſed amulet*, is one among many of theſe *numeral combinations*, which, when hung about the

[6] جبر *jaber* eſt reductio partium ad totum, ſeu fractionum ad integritatem. *Et hinc* Algebra *nomen habet*. Gol. My learned friend above mentioned, acquaints me, that *Diophantus* wrote on *Algebra* about the fourth century; and that his writings were tranſlated afterwards into *Arabic* by *Albugiani*, about *A. D.* 959. as *Abulfaragius* informs us.

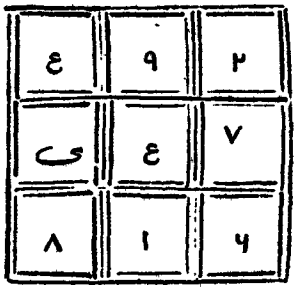
[7] *Our numbers*, viz. 1, 2, 3, 4, 5, 6, 7, 8, 9, 0. *being borrowed from the* Arabian ١ ٢ ٣ ٤ ٥ ٦ ٧ ٨ ٩ ٠ *which were originally from the* Indians. Vid. *Bernardi Tab. literat. ſeriem* vii.

[8] Or *Thulbys* (Vid. *note* p. 40.) *Studioſi ſapientiæ*, from طلب *quæſivit*. Vid. *Gol.*

[9] The MS. referred to above, is a little book, which contains not only this but a variety of other magic charms, and figures; wherein frequent prayer is made to God, after he is invoked by *Adam's* robe, by *Eve's* head-dreſs, by *Moſes's* rod, by the goſpel of *Jeſus*, &c. that he would beſtow his influence upon it, and be propitious to the bearer of it. The *Mahometans* place ſo great confidence in it, and indeed in every part of it, that after they have ſuſpended it upon their boſoms, they are afraid of nothing, and will undertake the moſt dangerous actions. I once ſaw a ſtrolling *Derviſhe* at *Algiers* armed with this book, who would have allowed us, nay even provoked us to fire at his head or breaſt a loaded gun or piſtol; which he confidently aſſured us could do him no harm. But as it was not prudent to make the experiment, and as the influence of it would be the ſame, as he affirmed, upon any other creature, we ſuſpended it accordingly upon the neck of a ſheep; which, indeed, a little to our ſurpriſe

neck,

neck, is ſaid to procure the favour of princes, to inſpire courage, to intimidate an enemy, to prevent diſtempers, or whatever elſe may be hurtful and injurious.



i. e *in our cyphers*

70	9	2
10	70	7
8	1	6

at firſt, and to the no ſmall exultation of the *Derviſhe*, ſtood about a minute after it was ſhot, before it fell down dead.

I have called theſe *diagrams* or *nets*, *numeral combinations*, and not, for what they might have been originally intended, *magic ſquares*: ſome of which conſiſt of four places, as this above does of three: wherein the letters ع, ى, ف, (interpreted by my late friend Mr. *Gagnier*, 70, 10, 80,) are often combined with the proper *Indian* or *Arabian* figures or numbers ٣, ٧, ٨, &c. We may therefore ſuſpect the MS. to be faulty, and that all theſe *nets* (like thoſe in *Parnelius's Archidox. mag.* l. vii. who might borrow them from the *Arabians*) were originally intended for ſo many *magic ſquares*; as this particularly by changing the firſt ع into ٤ 4, and the other into ٥ 5, and the ى into ٣ 3, will be

4	9	2
3	5	7
8	1	6

٤	٩	٢
٣	٥	٧
٨	١	٦

The following Hebrew *letters*,

ת	ם	א
ץ	אר	ם
מה	צ	ת

which Manaſſeh ben Iſrael *inſerts before his treatiſe* De reſurrectione mortuorum, *were probably another of theſe charms, or magic ſquares.*

SECT. IV.

Of their muſick, and muſical inſtruments.

The muſick *of the* Arabs.

IT has been already obſerved, that theſe people play upon ſeveral *inſtruments of muſick:* but as they do not write down their compoſitions, nor aim at any contraſt or variety of parts in the *muſick* itſelf, we cannot conſider even this branch of the *mathematics* as a ſcience among them. For the *muſick* of the *Bedoweens* rarely conſiſts of more than one ſtrain; ſuitable indeed to their homely inſtruments, and to their ſimple invention.

The arabebbah.

The gaſpah.

The *arabebbah*, as they call the *bladder and ſtring*, is in the higheſt vogue, and doubtleſs of great antiquity among them; as is alſo the *gaſpah*; which is a common reed, open at each end, like the *German flute*, with three or more holes upon the ſide, according to the ability of the perſon who is to touch it: though the compaſs of their tunes rarely or ever exceeds an *octave*. Yet, even in this ſimplicity of harmony, they obſerve ſomething of method and ceremony. For in their *hiſtorical cantata's* eſpecially, they have their *preludes* and *ſymphonies*; each *ſtanza* being introduced with a flouriſh from the *arabebbah*, while the narration itſelf is accompanied with ſome ſoft touches upon the *gaſpah*. The *ſtrolling Bedoweens* and *Derviſhes*, (like the ancient ΑΟΙΔΟΙ or *rhapſodiſts*) are chiefly converſant in this ſort of *muſick*; who, after they have got a multitude of people together, and placed them in a circle, begin to chant over the memorable actions of their prophet, *&c.* or elſe laying before them the *plans of Mecca, Medina, &c.* give a flouriſh at each period of their deſcriptions, with one or other of theſe inſtruments.

The tarr,

or tympanum.

The *tarr*, another of their inſtruments, is made like a ſieve, conſiſting (as *Iſidore*[1] deſcribes the *tympanum*) of a thin rim or hoop of wood, with a ſkin of parchment ſtretched over the top of it. This ſerves for the *baſs* in all their *concerts*; which they accordingly touch very artfully with their fingers, or with the knuckles or palms[2] of their hands, as the time and meaſure require, or as force and ſoftneſs are to be communicated to the ſeveral parts of the performance. The *tarr* is undoubtedly the *tympanum* of the ancients; which appears, as well from the general uſe of it all over *Barbary*, *Egypt*, and the *Levant*, as from the method of playing upon it, and the figure itſelf of the inſtrument, which is exactly the ſame with what we

[1] *Iſid. Orig.* l. iii. cap. 31. [2] *Lucret.* l. ii. 618.

find

find in the hands of *Cybele* and the *Bacchanals* among the *baſſo relievo's* and *ſtatues* of the ancients.

But the *muſick* of the *Moors* is more artful and melodious than that of the *Bedoweens:* for moſt of their tunes are lively and pleaſant; and if the account be true, (which I have often heard ſeriouſly affirmed,) that the flowers [3] of *mullein* and *mothwort* will drop, upon playing the *mizmoune*, they have ſomething to boaſt of, which our modern *muſick* does not pretend to. They have alſo a much greater variety of inſtruments than the *Arabs*; for beſides ſeveral ſorts of *flutes* and *haut-boys*, they have the *rebebb*, or *violin of two ſtrings*, played upon with a *bow:* they have the *a-oude* [4], or *baſs double ſtringed lute*, bigger than our *viol*, that is touched with a *plectrum*; beſides ſeveral ſmaller *gittars* (or *quetaras* [5], according to their pronunciation,) of different ſizes, each of them tuned an *octave* higher than another. They have alſo improved the *tarr* of the *Bedoweens*, by ſuſpending looſely, upon pieces of wire in the rim of it, ſeveral pairs of thin hollow braſs plates; which claſhing againſt each other in the ſeveral ſtrokes and vibrations given to the parchment, form a clinking but regular kind of noiſe, that fills up thoſe little vacancies of ſound, which would otherwiſe be unavoidable. Yet, notwithſtanding this multiplicity of inſtruments; notwithſtanding they learn all by ear, and paſs quickly from one meaſure to another, *haſtening the time* (as the *muſicians* term it) in them all; yet the greateſt uniformity and exactneſs is always preſerved throughout theſe performances. I have often obſerved twenty or thirty perſons playing together in this manner, during a whole night, (the uſual time of their more ſolemn entertainments [6],) without making the leaſt blunder or heſitation.

The Mooriſh *muſick and inſtruments.*

The rebebb.

The a-oude.

Neither ſhould I omit the *Turkiſh muſic*, which is inferior indeed to the *Mooriſh* in ſprightlineſs, yet is ſtill more compounded than that of the *Bedoweens*. The *Turks* have been always a proſperous and thriving nation, who diſtinguiſh themſelves ſometimes by briſk and chearful tempers; yet there is a certain mournful and melancholy turn, which runs through all their compoſitions. We may

The Turkiſh *muſic*, &c.

[3] *Ovid. Amor.* lib. iii. *El.* vii. 33.

[4] عود a-oude, *from whence the* Spaniſh laud *or* laut, *and our* lute, *ſuppoſed by* Bochart (*Hieroz.* i. l. iv. cap. 8.) *to be the* Χέλυς *or* teſtudo *of the ancients.*

[5] *The ſame word and inſtrument, no doubt, with the ancient* cithara.

[6] *Ye ſhall have a ſong as in the night, when a holy ſolemnity is kept,* Iſ. xxx. 29. Παννύχιοι δαίνυνθο was an early practice among the *Greeks*, as we learn from *Homer*, Il. η. 476.

account for it perhaps from that long intercourſe and converſation which they have had with their *Grecian* ſubjects; whoſe *airs*, like thoſe of a neighbouring nation, being uſually doleful and ſerious, inſpire in the hearer penſiveneſs and ſorrow; which, as they may be ſuppoſed to hang perpetually upon the mind, ſo cannot fail of being communicated to the *muſick* of perſons in diſtreſs and captivity. The *Turks* chiefly make uſe of two inſtruments; whereof the one is like a long necked *kitt*, or *fiddle*, played upon like the *rebebb*; the other, which is in the faſhion of our *dulcimer*, with braſs ſtrings, is touched ſometimes with the fingers, ſometimes with two ſmall ſticks, or elſe with a *plectrum*.

The muſic of the baſhaws, &c.

But the want of inſtruments in the private *muſick* of the *Turks*, is amply made up in *that* of their *beys* and *baſhaws*. For here (as in ſome of the eaſtern ceremonies of old [7]) are inſtruments without number; *flutes*, *hautboys*, and *trumpets*; *drums* and *kettle drums*; beſides a number and variety of *cymbals*, or hollow plates of braſs, which being beat [8], at certain intervals, one againſt another, thereby render a ſhrill and jarring, but martial ſound; ſuch as the *Corybantes*, in particular, made in the ceremonies of *Cybele* [9]. Here *the time is more haſtened* than in the *Mooriſh muſic*; the ſame note, which, in the beginning, was held out as long as a *minim*, being in the concluſion as quick as a *ſemi-quaver*. I had not art enough to note down any of theſe *airs*: but, in the following page, there are *ſpecimens* of the other.

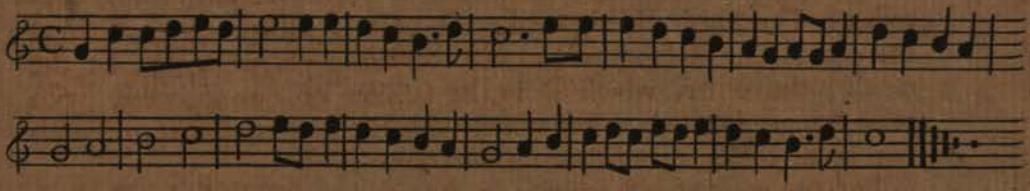
7 *As in* Dan. iii. 5, *where we have mentioned the* cornet, flute, harp, ſackbut, pſaltery, dulcimer, *and all kinds of muſic.*

8 *Auſon. ad Paulin.* ep. xxv. l. 20. *Lucret.* l. ii. 634. *Ovid. Faſt.* l. iv. 182. *Horat. Od.* xvi. l. i. 7. *Stat. Theb.* viii. 221. *Nonn. in Dionyſ.*

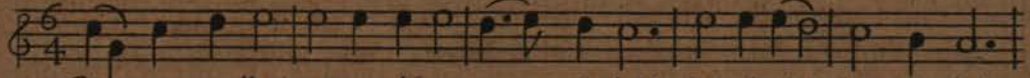
9 *Virg. Georg.* l. iv. 64. *Ovid. Met.* l. xiv. 537. *Virg. Æn.* ix. 619. *Plin. apud Strab.* l. x. *Arat. Phænom. interp. Germ.* p. 2. l. 15. *Eurip. in Bacch.* 125. *Arriani lib. rerum Ind.* p. 172 & 173. *Ed. Steph.* 1575.

The Bedowen Air.

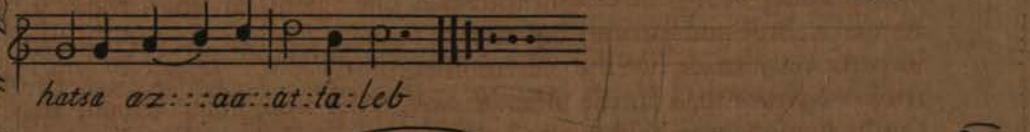
Prelude to the Mizmoune.



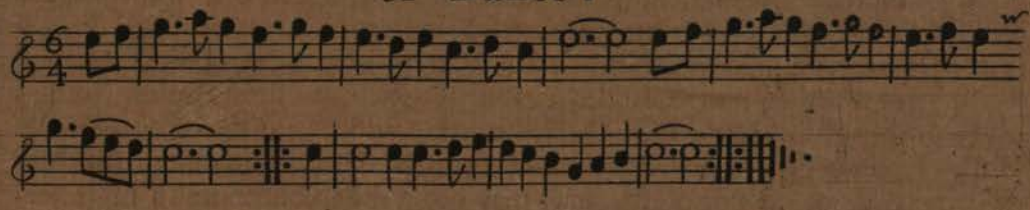
The Mizmoune.



The Moorish Air.

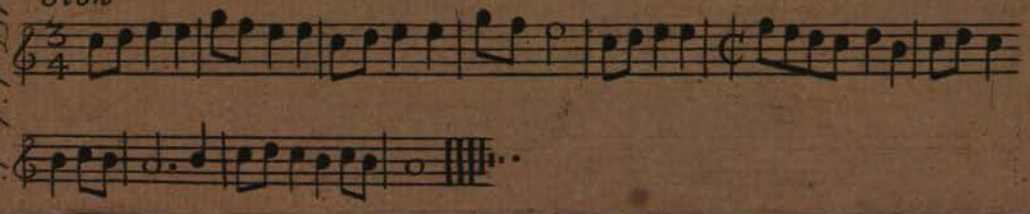


A Dance.



The Turkish Air.

Slow



SECT. V.

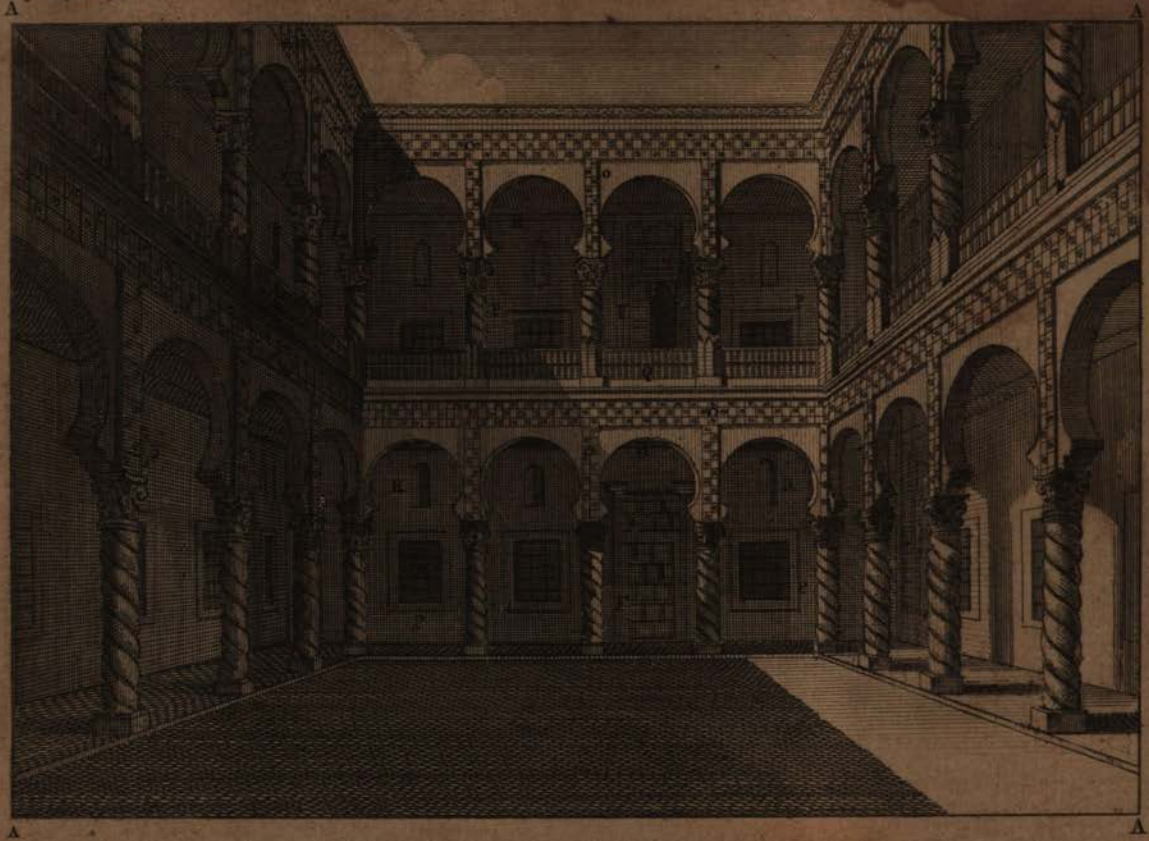
Of their architecture, or method of building.

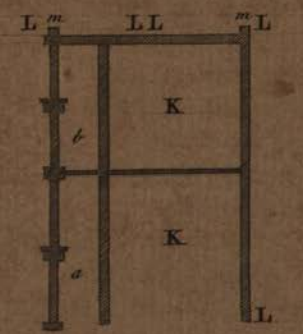
Their ſkill in architecture.

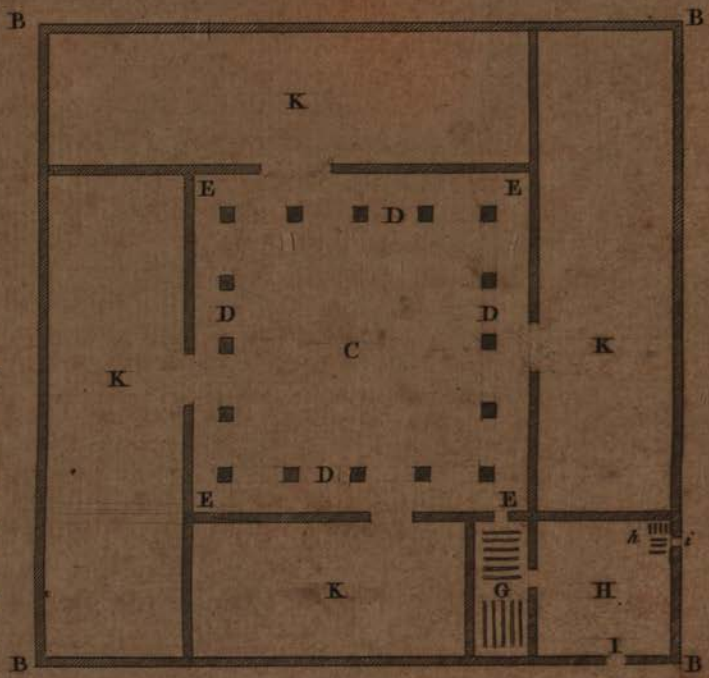
THE art, wherein the *Moors* particularly are the moſt converſant at preſent, is ARCHITECTURE; though, as ſpace and convenience are the only points regarded in their plans, the *mallums* (as they call thoſe perſons who are ſkilled in the deſigning and executing of them) are to be conſidered rather as maſters of a craft or trade, than of a ſcience or liberal profeſſion. However, the plaiſter and cement, which they make uſe of, (particularly where any extraordinary compactneſs or ſtrength is required) appear, upon compariſon, to be of the very ſame conſiſtence and compoſition with what we meet with in the moſt ancient fabrics. The ciſterns that were built by *Sultan Ben Eglib* in ſeveral parts of the kingdom of *Tunis*, (and the like may be ſaid of a variety of ſtructures at this time) are of equal ſolidity with the celebrated ones at *Carthage*; and continue to this day, unleſs where they have been deſignedly broken down, as firm and compact as if they were juſt finiſhed. The compoſition is made in this manner: *they take one part of ſand, two parts of wood aſhes, and three of lime*; which, after it is well ſifted and mixed together, they beat, for three days and nights inceſſantly, with wooden mallets, ſprinkling them alternately; and, at proper times, with a little oil and water, till they become of a due conſiſtence. This is chiefly uſed in making arches, ciſterns, and the terraſſes or tops of their houſes. But the *caduces*, as they call the earthen pipes of their aqueducts, are joined together and let into each other, by beating tow and lime together with oil only, without any mixture of water. Both theſe compoſitions quickly aſſume the hardneſs of ſtone, and ſuffer no water to pervade them.

Inſtead of common glue, the joiners frequently uſe a preparation of cheeſe, which is firſt to be pounded, with a little water, in a mortar, till the wheyey matter is entirely waſhed out. When this is done, they pound it again with a ſmall quantity of fine lime, and then apply it, as quick as poſſible, to ſuch boards as are to be joined together; which, after the joints are dry, are not to be ſeparated, I am told, even when thrown into water.

Having premiſed thus much, let us now ſpeak of their method of building; eſpecially as it relates to their dwelling houſes. And as there is a near relation between *them*, and *thoſe* that are occaſionally mentioned in the *H. Scriptures*, a particular account of the ſtructure and contrivance of the one, may not a little contribute to the clear-







AA. *The upright View of the Inside of one of the Houses in Barbary.* B. *The Ground Plan; the Scale being contracted.* C. *The Area or* woost el Dar. D. *The Colonade.* E. *The Cloyster, above which, in Houses of two Stories, there is a Gallery, of the like Fashion.* F. *The Doors.* G. *The Stair Case.* H. *The Porch, over which the Oltz is usually placed, with its Privy Stair-Case.* h. *leading into the Porch, or into the Street* i. I. *The great Door into the Street.* K. *The Chambers.* L. *a Perpendicular Section of the House; shewing the Cloyster and Gallery; the Chambers* K; *the Terrace* LL; *the Parapet Walls* mm. O. *Denotes that part of the Walls which are usually adorned with painted Tiles.* P. *The Windows.* Q. *The Ballustrade of the Gallery.* RR. *Lattices and other Devices in* Mosaick *work.*

ing up ſuch doubts and difficulties as have ariſen, from not rightly comprehending the faſhion of the other.

The faſhion of the houſes in Barbary *and the* Levant.

Now the general method of building, both in *Barbary* and the *Levant*, ſeems to have continued the ſame, from the earlieſt ages down to this time, without the leaſt alteration or improvement. Large doors, ſpacious chambers, marble pavements, cloyſtered courts, with fountains ſometimes playing in the midſt, are certainly conveniences very well adapted to the circumſtances of theſe hotter climates. The jealouſy likewiſe of theſe people is leſs apt to be alarmed, whilſt, if we except a ſmall *latticed window* or *balcony*, which ſometimes looks into the ſtreet, all the other windows open into their reſpective courts, or *quadrangles*. It is during the celebration only of ſome *zeenah* (as they call a public feſtival) that theſe houſes and their *latticed windows* or *balconies* are left open. For this being a time of great liberty, revelling and extravagance, each family is ambitious of adorning both the inſide and the outſide of their houſes with their richeſt furniture: whilſt crowds of both ſexes, dreſſed out in their beſt apparel, and laying aſide all modeſty and reſtraint, go in and out where they pleaſe. The account we have, 2 *Kings* ix. 30. of *Jezebel's painting her face, and tiring her head, and looking out at a window*, upon *Jehu's* public entrance into *Jezreel*, gives us a lively *idea* of an eaſtern lady at one of theſe *zeenahs* or *ſolemnities*.

The ſtreets of theſe cities, the better to ſhade them from the ſun, are uſually narrow, with ſometimes a range of ſhops on each ſide. If from theſe we enter into one of the principal houſes, we ſhall firſt paſs through a *porch* or *gate-way*, with benches on each ſide, where the maſter of the family receives viſits, and diſpatches buſineſs; few perſons, not even the neareſt relations, having further admiſſion, except upon extraordinary occaſions. *The* porch.

From hence we are received into the *court*, or *quadrangle*, which lying open to the weather, is, according to the ability of the owner, paved with marble, or ſuch materials, as will immediately carry off the water into the common ſewers. *The* court, *or* quadrangle, *the ſame with*

There is ſomething very analogous betwixt this open ſpace in theſe buildings, and the *impluvium* [1] or *cava ædium* of the *Ro-* *the* cava ædium.

[1] Si relictum erat in medio domus ut lucem caperet, deorſum quo impluebat, *impluvium* dicitur. *Varro de Ling. Lat.* l. iv. § 33. *Impluvium* locus ſine tecto in ædibus, quo impluere imber in domum poſſit. *Aſcon. Pedian. not. in Cicer. Orat.* i. *in Verrem*, c. 56. Sub divo, quod *impluvium* dicitur. *Serv. not. in Virg. Æn.* xi. 512. *Atria* ædificii genus fuere, continens *mediam aream*, in quam ex omni tecto pluvia recipitur, columnis quadrifariam perſingulos angulos diſpoſitis & epiſtyliis. *Alexand.* ab *Alexandro Genial. D.* l. iii. cap. 6. Præter *veſtibula* fuere *cava ædium & periſtylia*, in quæ quiſque ſuo jure non vocatus admittebatur. *Id.* lib. v. cap. 24.

mans; both of them being alike expoſed to the weather, and giving light to the houſe. When much people are to be admitted, as upon the celebration of a marriage, the circumciſing of a child, or occaſions of the like nature, the company is rarely or never received into one of the chambers. The court is the uſual place of their reception, which is ſtrewed accordingly with mats and carpets, for their more commodious entertainment: and as this is called *el wooſt*, or *the middle of the houſe*, literally anſwering to the τὸ μέσον of *St. Luke*, it is probable that the place, where our *Saviour* and the *apoſtles* were frequently accuſtomed to give their inſtructions, might have been in the like ſituation; *i. e.* in the *area* or *quadrangle* of one of theſe houſes. In the ſummer ſeaſon, and upon all occaſions, when a large company is to be received, this court is commonly ſheltered from the heat or inclemency of the weather, by a *velum*[2], *umbrella*, or *veil*; which, being expanded upon ropes from one ſide of the *parapet wall* to the other, may be folded or unfolded at pleaſure. The *Pſalmiſt* ſeems to allude either to the tents of the *Bedoweens*, or to ſome covering of this kind, in that beautiful expreſſion of, *ſpreading out the heavens like a veil* or *curtain*[3].

and the τὸ μέσον *of St.* Luke v. 19.

The court *ſhaded by a* veil,

The court is for the moſt part ſurrounded with a *cloyſter*; as the *cava ædium* of the *Romans* was with a *periſtylium* or *colonnade*; over which, when the houſe has one or more ſtories, (and I have ſeen them with two or three) there is a gallery erected, of the ſame dimenſions with the *cloyſter*, having a *balluſtrade*, or elſe a piece of carved or latticed work going round about it, to prevent people from falling from it into the court. From the *cloyſters* and *galleries*, we are conducted into large ſpacious *chambers*, of the ſame length with the court, but ſeldom or never communicating with one another. One of them frequently ſerves a whole family; particularly when a father indulges his married children to live with him; or when ſeveral perſons join in the rent of the ſame houſe. From whence it is, that the cities of theſe countries, which are generally much inferior in bigneſs to thoſe of *Europe*, yet are ſo exceedingly populous, that great numbers of the inhabitants are ſwept away by the plague, or any other contagious diſtemper. A mixture of families of this kind ſeems to be ſpoken of by *Maimonides*, as he is quoted by Dr. *Lightfoot*[4] upon 1 *Cor.* x. 16. In houſes of better faſhion, theſe chambers,

and ſurrounded with a cloyſter.

The chambers.

[2] *This is the ſame with the* Arab. سابات, *which is interpreted*, Velum, aut quid ſimile, quod obtenditur atrio domus, ſeu *cavædio*. Vid. *Gol. in voce.*

[3] *Pſal.* civ. 2. *The ſame expreſſion we have in the prophet* Iſaiah, xl. 22.

[4] "*Solomon* appointed that each place be appropriated to one man there, where "there is a diviſion into divers habitations, and each of the inhabitants receive there

from the middle of the wall downwards, are covered and adorned with velvet or damaſk hangings, of *white*, *blue*, *red*, *green*, or other colours (*Eſth.* i. 6.) ſuſpended (upon hooks) or taken down at pleaſure: but the upper part is embelliſhed with more permanent ornaments, being adorned with the moſt ingenious wreathings and devices, in *ſtucco* and *fret-work*. The cieling is generally of wainſcot, either very artfully painted, or elſe thrown into a variety of pannels, with gilded mouldings and ſcrolls of their *Koran* intermixed. The Prophet (*Jerem.* xxii. 14.) exclaims againſt the eaſtern houſes, that *were cieled with cedar, and painted with vermilion.* The floors are laid with painted tiles [5] or plaiſter of *terrace*; but as theſe people make little or no uſe of chairs (either ſitting croſs-legged, or lying at length) they always cover or ſpread them over with carpets, which, for the moſt part, are of the richeſt materials. Along the ſides of the wall, or floor, a range of narrow beds or matraſſes is often placed upon theſe carpets; and, for their further eaſe and convenience, ſeveral velvet or damaſk bolſters are placed upon theſe carpets or matraſſes: indulgences that ſeem to be alluded to, by *the ſtretching themſelves upon couches, and by the ſowing of pillows to arm-holes*, as we have it expreſſed, *Amos* vi. 4; *Ezek.* xiii. 18, and 20. At one end of each chamber there is a little gallery, raiſed three, four, or five feet above the floor, with a *balluſtrade* in the front of it, with a few ſteps likewiſe leading up to it. Here they place their beds; a ſituation frequently alluded to in the *H. Scriptures* [6]; which may likewiſe illuſtrate the circumſtance of *Hezekiah's turning his face* [7], *when he prayed, towards the wall*, (i. e. from his

The cieling.

The floor.

Their beds.

" a place proper to himſelf, and ſome place alſo is left there common to all, ſo that " all have an equal right to it, as a court belonging to many houſes, &c. (עירוב) " *The conſorting together*, which thoſe that dwell among themſelves in the ſame court, " make, (is called עירובי חצרות κοινωνία) *The communion of courts.* And that " conſorting together which they make that dwell among themſelves in the ſame walk " or entry, or which citizens of the ſame city make among themſelves, is called " (שיתוף) *participating together.*"

[5] A pavement like this is mentioned *Eſth.* i. 6, 7. *The beds were of gold and ſilver, upon a pavement of red and blue and white and black marble.*

[6] *Thou wenteſt up to thy father's bed — to my couch*, Gen. xlix. 4. *Thou ſhalt not come down from that bed on which thou art gone up*, 2 Kings i. 6. and 16. *I will not go up into my bed*, Pſalm cxxxii. 3.

[7] In the *Targum* of *Jonathan*, *turning towards the wall*, is explained by *turning towards the wall of the ſanctuary*, or *the weſtern wall* (as *Abarbanel* further illuſtrates it) *where the ark ſtood*; this being their *kiblah*, or place towards which they were to worſhip (1 *Kings* viii. 38, &c.) But the like action, that is recorded of the wicked and idolatrous king *Ahab* can ſcarce have ſuch a conſtruction put upon it; neither

attendants) 2 *Kings* xx. 2. that the fervency of his devotion might be the leſs taken notice of and obſerved. The like is related of *Ahab*, (1 *Kings* xxi. 4.) though probably not upon a religious account, but in order to conceal from his attendants the anguiſh he was in for his late diſappointment.

The ſtairs. The ſtairs are ſometimes placed in the porch, ſometimes at the entrance into the court. When there is one or more ſtories, they are afterwards continued, through one corner or other of the gallery, to the top of the houſe; whither they conduct us through a door, that is conſtantly kept ſhut, to prevent their domeſtic animals from daubing the *terrace*, and thereby ſpoiling the water which falls from thence into the ciſterns below the court. This door, like moſt others we meet with in theſe countries, is hung, not with hinges, but by having the jamb formed at each end into an axle-tree, or pivot; whereof the uppermoſt, which is the longeſt, is to be received into a correſpondent ſocket in the lintel, whilſt the other falls into a cavity of the like faſhion in the threſhold. The ſtone door, ſo much admired, and taken notice of by Mr. *Maundrell*[8], is exactly of this faſhion, and very common in moſt places.

The doors.

No ſtairs upon the outſide of their houſes. I do not remember ever to have obſerved the ſtair-caſe conducted along the outſide of the houſe, according to the deſcription of ſome late very learned authors; neither indeed will the contiguity and relation, which theſe houſes bear to the ſtreet, and to each other, (excluſive of the ſuppoſed privacy of them) admit of any ſuch contrivance. However, we may go up or come down, by the ſtair-caſe I have deſcribed, without entering into any of the offices or apartments, and conſequently without interfering with the buſineſs of the houſe.

The tops of the houſes flat. The top of the houſe, which is always flat, is covered with a ſtrong plaiſter of *terrace*; from whence, in the *Frank* language, it has attained the name of *the terrace*. This is uſually ſurrounded by two walls, the outermoſt whereof is partly built over the ſtreet, partly makes the partition with the contiguous houſes; being frequently ſo low, that one may eaſily climb over it. The other, which I ſhall call the *parapet wall*, hangs immediately over the court, being always breaſt high, and anſwers to the מעקה [9], or *lorica*, *Deut.* xxii. 8.

The parapet-wall.

can we well ſuppoſe, that the like cuſtom was obſerved in placing both their beds and their windows to face the ſanctuary, (*Dan.* vi. 10.) for if the latter did ſo, the other, as lying in a corner, at a diſtance from them, muſt have a different ſituation.

[8] Vid. *Maundrel's Journey from Aleppo to Jeruſalem*, p. 77. Ed. *Ox.* 1707.

[9] *When thou buildeſt a new houſe, then thou ſhalt make a* battlement (מעקה) *for thy roof, that thou bring not blood upon thine houſe, if any man fall from thence*, Deut. xxii. 8. עקה inde מעקה, quod, ſecundum *Rabbi David* in libro *Radicum*, erat ædificium

which

which we render *the battlements*. Inſtead of this *parapet wall*, ſome *terraces* are guarded, like the galleries, with *balluſtrades* only, or latticed-work: in which faſhion probably, as the name ſeems to import, was the שבכה or *net*, or *lattice*, as we render it, that *Ahaziah* (2 *Kings* i. 2.) might be careleſly leaning over, when he fell down from thence into the court. For, upon theſe *terraces*, ſeveral offices of the family are performed; ſuch as the drying of linen and flax, *Joſh.* ii. 6. the preparing of figs and raiſins; where likewiſe they enjoy the cool refreſhing breezes of the evening [1], converſe with one another, and offer up their devotions [2]. In the feaſt of *tabernacles* booths were erected upon them, *Neh.* viii. 16. As theſe *terraces* are thus frequently uſed and trampled upon, not to mention the ſolidity of the materials wherewith they are made, they will not eaſily permit any vegetable ſubſtances to take root or thrive upon them; which perhaps may illuſtrate the compariſon, *Iſ.* xxxvii. 27. of the *Aſſyrians*, and *Pſ.* cxxix. 6. of the wicked, *to the graſs upon the houſe-tops, which withereth before it is grown up.*

The caſe of the paralytic explained.

When any of theſe cities is built upon level ground, one may paſs along the tops of the houſes from one end of it to the other, without coming down into the ſtreet. Such in general is the manner and contrivance of theſe houſes. If then it may be preſumed that our *Saviour*, at the healing of the *paralytic*, was preaching in a houſe of this faſhion, we may, by attending only to the ſtructure of it, give no ſmall light to one circumſtance of that hiſtory, which has lately given great offence to ſome unbelievers. For, among other pretended difficulties and abſurdities, relating to this fact, it has been urged [3], that "as *the uncovering* or *breaking up of the roof*, Mark ii. 4. "or *the letting a perſon down through it*, Luke v. 19. ſuppoſes the "breaking up of tiles, ſpars, rafters, *&c.* ſo it was well," (as the author goes on in his ludicrous manner,) "if *Jeſus* and his diſciples "eſcaped with only a broken pate, by the falling of the tiles, and if "the reſt were not ſmothered with duſt." But, that nothing of this

quod faciebant in circuitu tecti (i.e. partis ſuperioris domus quæ erat plana) ne quis inde caderet: & erat altitudinis decem שמרים (i. e. palmarum) quæ eſt menſura quatuor digitorum ſuper ſe poſitorum, vel amplius. Vid. *Pagn. Lex.*

[1] *And it came to paſs in an evening tide, that David roſe from off his bed, and walked upon the roof of the king's houſe*, 2 Sam. xi. 2. *So they ſpread Abſalom a tent upon the top of the houſe*, Ibid. xvi. 22. *Samuel communed with Saul upon the top of the houſe*, 1 Sam. ix. 25. *Samuel called Saul to the top of the houſe*, ver. 26.

[2] *They that worſhip the hoſt of heaven upon the houſe top*, Zeph. i. 5. *On the tops of the houſes of Moab ſhall be howling*, Iſ. xv. 3. *Peter went up upon the houſe-top to pray*, Acts x. 9, &c.

[3] Vid. *Woolſton's four Diſc.* p. 57.

nature happened, will appear probable from a different conſtruction that may be put upon the words in the original. For it may be obſerved, with relation to the words of St. *Mark*, ἀπεςέγασαν τὴν ςέγλω ὅπου ἦν, καὶ ἐξορύξαντες, &c. that as ςέγη (no leſs perhaps than ܛܠܠܐ *tatlilo* [4], the correſpondent word in the *Syriac* verſion) will denote, with propriety enough, any kind of *covering*, the veil which I have mentioned, as well as a roof or cieling properly ſo called; ſo, for the ſame reaſon, ἀποςέγειν may ſignify the undoing or the removal only of ſuch *covering*. Ἐξορύξαντες, which we render *breaking up*, is omitted in the *Cambridge* MS. and not regarded in the *Syriac* and ſome other verſions: the tranſlators perhaps either not rightly comprehending the meaning of it, or finding the context clear without it. In St. *Jerom's* tranſlation, the correſpondent word is *patefacientes*, as if ἐξορύξαντες was further explanatory of ἀπεςέγασαν· the ſame in the *Perſian* verſion is expreſſed by *quatuor angulis lectuli totidem funibus annexis*; as if ἐξορύξαντες related either to the letting down of the bed, or, preparatory thereto, to the making holes in it for the cords to paſs through. According to this explication, therefore, the context may run thus: *When they could not come at Jeſus for the preſs, they got upon the roof of the houſe, and drew back the veil where he was*; or they laid open and uncovered that part of it eſpecially which was ſpread over the place (ὅπου ἦν) *where he was* ſitting, and *having* removed, and *plucked away*, (according to St. *Jerom*) whatever might incommode them in their intended good office, or *having tied* (according to the *Perſian* verſion) the four corners of the *bed* or bed-ſtead with cords, *where the ſick of the palſey lay, they let it down before Jeſus.*

Στέγη, *a veil.*

Διὰ τῶν κεράμων, i. e. *along the ſide of the roof.*

For that there was not the leaſt force or violence offered to the roof, and conſequently, that ἐξορύξαντες, no leſs than ἀπεςέγασαν will admit of ſome other interpretations than what have been given to them in our verſion, appears from the parallel place in St. *Luke*, where διὰ τῶν κεράμων καθῆκαν αὐτὸν, *per tegulas demiſerunt illum*, (which we tranſlate, *they let him down through the tiling*, as if *that* had actually been broken up already) ſhould be rendered, *they let him down over, along the ſide*, or *by the way of the roof*. For as κέραμοι or *tegulæ*, which originally perhaps denoted a roof of tiles, like thoſe of the

[4] Sc. a ܛܠܠ (*Heb.* טלל *Arab.* ظل) texit, obumbravit; unde ܛܠܠܐ (*Arab.* ظل) umbra & ܛܠܠܐ tectum, laqueare, tabulatum, umbraculum. Vid. *Car. Schaaf Lex. Syriac.* p. 214—15. & *Caſtell. Lex.* p. 1503. *They lifted up the roof*, (according to the import of the *Syriac* verſion) *i. e.* as *Dionyſius Syrus* interprets it, *By art they found out a way to lift up the roof of the houſe, and eaſily to let down the bed in ſuch a manner, that neither the timber nor duſt might fall upon them, as many in theſe days have the cunning to do the ſame.* Loftus's Tranſlation, p. 17.

northern nations, were afterwards applied to the *tectum* [5] or δῶμα in general, of what nature or ſtructure ſoever they were, ſo the meaning of letting down a perſon into the houſe, *per tegulas*, or διὰ τῶν κεράμων, can depend only upon the uſe of the *prepoſition* διά. Now both in *Acts* ix. 26. καθῆκαν [αὐτὸν] διὰ τῆ τείχες, and 2 *Cor.* xi. 33. ἐχαλάσθην διὰ τῆ τείχες; (where the like *phraſeology* is obſerved as in St. *Luke*;) διὰ is rendered in both places *by*, that is *along the ſide*, or *by the way of the wall*. By interpreting therefore διὰ in this ſenſe, διὰ τῶν κεράμων καθῆκαν αὐτὸν will be rendered, as above, *they let him down over*, or *by the way of, the wall*, juſt as we may ſuppoſe *M. Anthony* to have been, agreeable to a noted paſſage in *Tully* [6]. An action of the ſame nature ſeems to be likewiſe implied in what is related of *Jupiter* (*Ter. Eun.* iii. 5. 37.) where he is ſaid *ſeſe in hominem convertiſſe, atque* per alienas tegulas *veniſſe clanculum per impluvium*. And of the *ſnake*, which we learn (*Ter. Phorm.* iv. 4. 47.) *per impluvium decidiſſe de tegulis*. What Dr. *Lightfoot* alſo obſerves out of the *Talmud*, upon *Mark* ii. 4. will, by an alteration only of the *prepoſition* which anſwers to διὰ, further vouch for this interpretation. For, as it is there cited, "*when* "*Rabh Honna was dead, and his bier could not be carried out through* "*the door, which was too ſtraight and narrow, therefore*" (in order we may ſupply, to bury it) "[סביר שלשילי] *they thought good to* "*let it down* [דרך גגין] (i. e. *not through the roof*, or *through the way of the roof*, as the Doctor renders it, but) as in διὰ τῶν κεράμων, or διὰ τῆ τείχες, *by the way*, or *over the roof*, viz. by taking it upon the *terrace*, and letting it down by the wall, that way, into the ſtreet. We have a paſſage in *Aulus Gellius* [7] exactly of the ſame purport, where it is ſaid, that, if "*any perſon in chains ſhould make his eſcape* "*into the houſe of the* Flamen Dialis, *he ſhould be forthwith* "*looſed: and that his fetters ſhould be drawn up through the* impluvium, *upon the roof or* terrace, *and from thence be let down into the* "*highway or the ſtreet.*"

[5] Quemque in *tegulis* videritis alienum — videritis hominem in noſtris *tegulis*, &c. *Plaut. Mil.* ii. 2. De *tegulis* modo neſcio quis inſpectavit voſtrarum familiarium per noſtrum *impluvium* intus apud nos Philocomaſium, atque hoſpitem oſculantis. *Plaut. Mil.* ii. 2. ℣ 7. Vinctum, ſi ædes ejus [*Flaminis Dialis*] introierit, ſolvi neceſſum eſt; & vincula per *impluvium* in *tegulas* ſubduci, atque inde foras in viam dimitti. *Aul. Gell. Noct. Attic.* x. 15. Quum tamen tu nocte ſocia, hortante libidine, cogente mercede, per *tegulas* demitterere. *Cic.* 2 Phil. 45. Αὐτὸ δὲ τὸ τέγος, ὃ μόνον οἱ νῦν κέραμον ὀνομάζουσιν, ἀλλὰ, &c. *Jul. Poll. Onom.* l. vii. c. 33.

[6] Vid. Not. ut ſupra.

[7] Vid. *Aul. Gell.* ut ſupra.

When

No breach made in the tiling.

When the uſe then of theſe phraſes, and the faſhion of theſe houſes, are rightly conſidered, there will be no reaſon to ſuppoſe that any breach was actually made in the *tegulæ* or κέραμοι; ſince all that was to be done in the caſe of the *paralytic*, was to carry him up to the top of the houſe, (either by forcing their way, through the crowd, up the ſtair-caſe; or elſe by conveying him over ſome of the neighbouring *terraces*) and there, after they had drawn away the στέγη or *veil, to let him down*, along the ſide of the roof (through the opening or *impluvium,) into the midſt* (of the court) *before Jeſus.*

Small houſes annexed to the greater.

To moſt of theſe houſes there is a ſmaller one annexed; which ſometimes riſes one ſtory higher than the houſe; at other times it conſiſts of one or two rooms only and a *terrace*; whilſt others, that are built (as they frequently are) over the porch or gate-way, have (if we except the ground-floor, which they have not) all the conveniences that belong to the houſe, properly ſo called. There is a door of communication from them into the gallery of the houſe, kept open or ſhut at the diſcretion of the maſter of the family; beſides another door, which opens immediately, from a privy ſtairs, down into the porch or ſtreet, without giving the leaſt diſturbance to the houſe. Theſe *back-houſes*, as we may call them, are known by the name of *alee* or *oleah*; (for the houſe, properly ſo called, is *dar* or *beet*;) and in them ſtrangers are uſually lodged and entertained; in them the ſons of the family are permitted to keep their concubines; whither likewiſe the men are wont to retire, from the hurry and noiſe of their families, to be more at leiſure for meditation or diverſions: beſides the uſe, they are at other times put to, in ſerving for wardrobes and magazines.

called olees.

The Hebrew *and* Arabick *name for them the ſame.*

The עליה of the *Holy Scriptures* being literally the ſame appellation, with علية, is accordingly ſo rendered in the *Arabic* verſion. We may ſuppoſe it then to have been a ſtructure of the like contrivance. The *little chamber* [8], conſequently, that was built by the *Shunamite* for *Eliſha*, (whither, as the text inſtructs us, he retired at his pleaſure, without breaking in upon the private affairs of the family, or being, in his turn, interrupted by them in his devotions;) the *ſummer chamber* of *Eglon* [9], (which, in the ſame manner with theſe, ſeems to have had privy ſtairs belonging to it, through which *Ehud* eſcaped after he had

[8] *Let us make a little chamber, I pray thee, on the wall; and let us ſet for him there a bed and a table and a ſtool and a candleſtick: and it ſhall be when he cometh to us, that he ſhall turn in thither*, 2 Kings iv. 10.

[9] *And Ehud came unto him*, (Eglon) *and was ſitting in a ſummer parlour, which he had for himſelf alone—then Ehud went forth through the porch*, Judg. iii. 20—23.

revenged

revenged *Iſrael* upon that king of *Moab*;) the *chamber over the gate* [1], (whither, for the greater privacy, *David* withdrew himſelf to weep for *Abſalom*;) the upper chamber, upon whoſe *terrace Ahaz*, for the ſame reaſon, erected his [2] altars; *the inner chamber* likewiſe (or, as it is better expreſſed in the original, *a chamber within a chamber*) where the young man the prophet anointed *Jehu* [3], ſeem to have been all of them ſtructures of the like nature and contrivance with theſe *olees*.

Beſides; as עליה or עלית in the *Hebrew* text, and علية in the *Arabic* verſion, is expreſſed by ὑπερῷον in the LXXII; it may be preſumed, that the ſame word, ὑπερῷον, where it occurs in the *New Teſtament*, implies the ſame thing. The *upper chamber* therefore, or ὑπερῷον, where *Tabitha* was laid after her death [4], and where *Eutychus* [5] alſo fell down from the third loft, were ſo many *back-houſes* or *olees*; as they are indeed ſo called in the *Arabic* verſion.

Olee *of the like import with* ὑπερῷον.

That ὑπερῷον denotes ſuch a private apartment as one of theſe *olees*, (for *garrets*, from the flatneſs of theſe roofs, are not known in theſe climates) ſeems likewiſe probable from the uſe of the word among the claſſic authors. For the ὑπερῷον, where *Mercury* and *Mars* carried on their amours [6], and where *Penelope* kept herſelf [7] with the young virgins [8] at a diſtance from the ſolicitations of their wooers, appear to carry along with them circumſtances of greater privacy and retirement, than are conſiſtent with chambers in any other ſituation.

ὑπερῷον *the ſame with a back houſe*.

Nay further; that עליה, علية or ὑπερῷον could not barely ſignify a ſingle chamber, *cœnaculum*, or dining-room, but one of theſe contiguous or *back houſes*, divided into ſeveral apartments, ſeems to appear from the circumſtance of the altars which *Ahaz* erected upon the top of his עליה. For, beſides the ſuppoſed privacy of his idolatry, which, upon account of the perpetual view and obſervation of the family, could not have been carried on undiſcovered in any apartment of the houſe; I ſay, if this his עליה had been only one ſingle chamber of the בת houſe, the roof of it would have been aſcribed to the בת, and not to the עליה; which, upon this ſuppoſition, could only make one chamber of it. A circumſtance of the like nature may probably be collected from the *Arabic* verſion of ὑπερῷον, *Acts* ix. 39. where it is not rendered علية as in ver. 37. but غرفة *girfat*; in-

and not a ſingle chamber.

[1] *And the king was much moved, and went up to the chamber over the gate and wept*, 2 Sam. xviii. 33. [2] *And the altars that were upon the top of the upper chamber of Ahaz, which the kings of Judah had made*, 2 Kings xxiii. 12. [3] 2 Kings ix. 2. [4] Acts ix. 36. [5] Acts xx. 8, 9, &c. [6] *Hom. Il.* Π. ver. 184. Β. ver. 514. [7] Id. *Odyſſ.* Ο. ver. 515-16. [8] *Athen. Deip.* l. ii. c. 16. *Euſtath.* in ver. 184. *Il.* Π. p. 1054. & in *Il.* Π. ver. 514. p. 272.

timating

timating perhaps *that* particular chamber of the עלי where the damſel was laid. The falling likewiſe of *Eutychus* from the third loft (as the context ſeems to imply) of the ὑπερῷον, there being no mention made of an houſe, may likewiſe be received as a further proof of what I have been endeavouring to explain. For it has been already obſerved, that theſe *olees* are built in the ſame manner and with the like conveniencies as the houſe itſelf; conſequently what poſition ſoever the ὑπερῷον may be ſuppoſed to have, from the ſeeming *etymology* of the name, will be applicable to the *olee* as well as to the *houſe*.

The olee built in the ſame faſhion with the houſe.

The word ὑπερῷον will likewiſe admit of another interpretation in our favour; inaſmuch as it denoteth not ſo much a chamber remarkable for the high ſituation of it, (as *Euſtathius* [9] and others after him give into,) but ſuch a building, as is erected *upon* or *beyond* the walls or borders of another [1]; juſt as theſe *olees* are actually contrived with regard to the בת or *houſe*. Neither will this interpretation interfere with the high ſituation that ὑπερῷον may be ſuppoſed to have, in being frequently joined with the words ἀναβαίνειν or καταβαίνειν. Becauſe the going in or out of the בת or *houſe*, (whoſe ground-floor lies upon the ſame level with the ſtreet,) could not be expreſſed by words of ſuch import: whereas the *olees*, being uſually ſituated over the porch or gate-way, a ſmall ſtair-caſe is to be previouſly mounted before we can be ſaid properly to enter them; and conſequently ἀναβαίνειν and καταβαίνειν are more applicable to ſtructures in ſuch a ſituation, than to the houſe properly ſo called.

The ὑπερῷον erected upon another building.

The aſcent into the ὑπερῷον.

This method of building may further aſſiſt us, in accounting for the particular ſtructure of the *temple* or *houſe* of *Dagon*, (*Judg.* xvi.) and the great number of people that were buried in the ruins of it, by pulling down the two principal pillars that ſupported it. We read, (*ver.* 27.) that about *three thouſand perſons were upon the roof to behold while* Sampſon *made ſport, viz.* to the ſcoffing and deriding *Philiſtines*. *Sampſon* therefore muſt have been in a court or *area* below; and conſequently the *temple* will be of the ſame kind with the ancient τεμένη or *ſacred incloſures*, which were only ſurrounded either in part or on all ſides with ſome plain or cloyſtered buildings. Several palaces and

The temple of Dagon.

[9] Vid. *note* 8. ſupra.

[1] Υπερῷον pro ὑπερώϊον, contracte & Atticè dicitur, ut παλερῶον pro παλερώϊον. Dictio componitur ab ὑπὲρ & ὦϊον, quod *fimbriam* ſignificat & *extremitatem*. Primam vero hujus vocis originem ducunt a nomine ὄϊς ἐκλάσει τῦ ο εἰς ω. atque ideo pro limbo accipi: ὅτι οἱ ἀρχαῖοι περὶ σάτων δέσμαλα ἐνέβαλλον τοῖς τῶν ἱμαλίων περιπαπέδοις, i. e. quod antiqui aliquid, de pellibus ovium extremis veſtibus adjicerent. Hinc factum, ut pro quacunque extremitate, ima, ſumma, aut alia quavis accipiatur. *Car. Gerardi Annot.* in *Plutum Ariſtophanis*, p. 83.

dou-

dou-wânas (as the courts of juſtice are called in theſe countries) are built in this faſhion; where, upon their public feſtivals and rejoicings, a great quantity of ſand is ſtrewed upon the *area* for the *pellowans* or *wreſtlers* to fall upon[z]; whilſt the roofs of theſe cloyſters are crowded with ſpectators, to admire their ſtrength and activity. I have often ſeen numbers of people diverted, in this manner, upon the roof of the *dey's* palace at *Algiers*; which, like many more of the ſame quality and denomination, has an advanced cloiſter, *over againſt the gate of the palace*, (*Eſth.* v. 1.) made in the faſhion of a large *pent-houſe*, ſupported only by one or two contiguous pillars in the front, or elſe in the center. In ſuch open ſtructures as theſe, the *baſhaws*, *kadees*, and other great officers, diſtribute juſtice, and tranſact the public affairs of their provinces. Here likewiſe they have their public entertainments, as the lords and others of the *Philiſtines* had in the houſe of *Dagon*. Upon a ſuppoſition therefore, that in the houſe of *Dagon*, there was a cloiſtered building of this kind, the pulling down the front or center pillars, which ſupported it, would alone be attended with the like *cataſtrophe* that happened to the *Philiſtines*. *The faſhion of it.*

[z] It appears probable, from the following circumſtances, that the exerciſe of *wreſtling*, as it is now performed by the *Turks*, is the very ſame that was anciently uſed in the *Olympic* games. For, beſides the previous covering of the *palæſtra* with ſand, that the combatants might fall with more ſafety, they have their *pellowan baſhee*, or *maſter-wreſtler*, who, like the Ἀγωνοθέτης of old, is to obſerve and ſuperintend over the *jura palæſtræ*, and to be the umpire in all diſputes. The combatants, after they are anointed all over with oil, to render their naked bodies the more ſlippery and leſs eaſily to be taken hold of, firſt of all look one another ſtedfaſtly in the face, as *Diomede* or *Ulyſſes* does the *palladium* upon antique gems: then they run up to and retire *from* each other ſeveral times, uſing all the while a variety of antic and other poſtures, ſuch as are commonly uſed in the courſe of the enſuing conflict. After this prelude, they draw nearer together, and challenge each other, by clapping the palms of their hands, firſt upon their own knees or thighs, then upon each other, and afterwards upon the palms of their reſpective antagoniſts. The challenge being thus given, they immediately cloſe in and ſtruggle with each other, ſtriving with all their ſtrength, art, and dexterity, (which are often very extraordinary) who ſhall give his antagoniſt a fall, and become the conqueror. During theſe conteſts, I have often ſeen their arms, and legs, and thighs ſo twiſted and linked together, (*catenatæ palæſtræ* as *Propertius* calls it,) that they have both fallen down together, and left the victory dubious; too difficult ſometimes for the *pellowan baſhee* to decide. ΠΑΛΑΙΣΤΗΣ ΑΠΤΩΤΟΣ, (*a wreſtler not to be thrown*) occurs in ancient inſcriptions, (*Murat.* tom. ii. p. 627.) The πάλη therefore being thus acted in all the parts of it with open hands, might very properly, in contradiſtinction to the *ceſtus* or boxing, receive its name ἀπὸ τῶν παλαισῶν, from ſtruggling with open hands. We have a moſt lively picture of this ancient *gymnaſtic* exerciſe upon an antique urn, in *Patin's Imp. Roman. Numiſmata*, p. 122. and likewiſe upon a coin of *Trebonianus Gallus*; the figure whereof is exhibited in *Vaill. Numiſm. Imper. Græc.*

The faſhion of their moſques.

Their *moſques* and *ſepulchres* are other ſtructures, which ſtill remain undeſcribed. The firſt, which they pronounce [مسجد [3]] *meſg-jid*, are built exactly in the faſhion of our churches, particularly of the *Gothic* taſte [4]; where, inſtead of ſuch ſeats and benches as we make uſe of, they only ſtrew the floor with mats, upon which they perform the ſeveral *ſtations*, *ſittings*, and *proſtrations* that are enjoined in the ceremonies of their religion. Near the middle, particularly of the principal *moſque* of each city, there is erected a large pulpit, balluſtraded round, with a few ſteps leading up to it. Upon theſe (for I am told none are permitted to enter the pulpit itſelf) the *mufti* or one of the *im-ams* places himſelf every *Friday*, *The day of the congregation* [5], as they call it, and from thence either explains ſome part or other of the *Koran*, or elſe exhorts the people to piety and good works. The wall of theſe *moſques*, which regards *Mecca*, and to which they direct themſelves throughout the whole of their devotions, is called the *kiblah* [6] or the τὸ ἀνϑικείμενον, and in this wall there is commonly a nich, repreſenting *the preſence, and, at the ſame time, the inviſibility of the Deity* [7]. There is uſually a *minoret* or ſquare tower erected upon the oppoſite end of the *moſque*, with a flag-ſtaff fixed upon the top of it: whither the *muedin* or *cryer* aſcends at the appointed times of prayer, and, after diſplaying a ſmall flag, adverti ſes the people thereof, with a loud voice, from each ſide of it. Theſe *minorets*, and this method of calling the people to prayer (for bells have been always an abomination to the *Mahometans*) are of great antiquity, and took place, as I am informed, as early as the 65th year of the *hejira*. Theſe places of the *Mahometan* worſhip, the ſanctuaries of their *marabbutts*, the *mufties*, the *im-ams* [8], and other perſons

[3] i. e. *The place of humiliation, from* مسجد [*Heb.* סגד] humiliavit ſe, procubuit: *pec.* reverentiæ ergo. *ſpec.* frontem imponens terræ, ad commonſtrandam ſupplicis animi dejectionem atque abnegationem ſui. Vid. *Gol.* in voce.

[4] The *Goths*, perhaps, when maſters of *Spain*, might have learnt this method of building from the *Moors*; and from thence have communicated it in their conqueſts or migrations over moſt parts of *Europe*.

[5] i. e. *The church or place where the people meet together, ſo called from* جمع collegit, congregavit, &c. *When there are ſeveral* moſques *in one city, the largeſt is called the* jimmah, *and ſometimes* el jimmah kibeerah, *the great or mother church, in which their public devotions*, &c. *are uſually performed on* Fridays.

[6] *From* قبل e regione oppoſitus fuit, &c. Vid. *Gol.* & *note*, p. 32. The temple of *Jeruſalem* was the *Jewiſh kiblah*, as we are informed from theſe expreſſions, 1 *Kings* viii. 38. 42. 44. 48. of *ſtretching out their hands towards that houſe*, and of *praying towards that houſe, and of* Daniel's *praying towards* Jeruſalem, vi. 10.

[7] Vid. *Maund. Trav. to Jeruſ.* p. 15. edit. *Oxon.*

[8] امام *i-mim, em-am*, or *im-am*, præſes, anteceſſor, quem alii ſectantur ac imitantur: *peculiariter* qui præit populo ſacros ritus & ſacrorum antiſtes. Vid. *Gol.* in voce.

reſpectively

reſpectively belonging to them, are maintained out of certain revenues[9] ariſing from the rents of lands and houſes, which have been either left by will, or ſet apart by the public for thoſe uſes.

How they conduct their funerals.

When a funeral is ſolemniſed, it is uſual to bring the corpſe, at the afternoon prayers, to one or other of theſe *moſques*; from whence it is accompanied, by the greateſt part of the congregation, to the grave. Upon theſe occaſions their proceſſions are not ſlow and ſolemn, as in moſt parts of *Chriſtendom*; the whole company making what haſte they can, and ſinging, as they go along, ſome ſelect verſes of their *Koran*. That abſolute ſubmiſſion, which they pay to the will of God, allows them not to uſe any conſolatory words upon theſe ſolemnities: no loſs or misfortune is to be regretted: inſtead likewiſe of ſuch expreſſions of ſorrow and condolence, as may regard the deceaſed, the compliments turn upon the perſon, who is the moſt nearly related, *Berka ſe raſſick*, ſay his friends; i. e. *A bleſſing be upon your head.*

The manner of their ſepulchres.

If we except a few perſons, who are buried within the precincts of the *ſanctuaries* of their *marabbutts*, the reſt are carried out at a ſmall diſtance from their cities and villages, where a great extent of ground is allotted for that purpoſe. Each family has a proper portion of it, walled in like a garden; where the bones of their anceſtors have remained undiſturbed for many generations. For, in theſe encloſures[1], the graves are all diſtinct and ſeparate; each of them having a ſtone, placed upright, both at the head and feet, inſcribed with the name (or *title*, 2 *Kings* xxiii. 17.) of the deceaſed: whilſt the intermediate ſpace is either planted with flowers; bordered round with ſtone; or paved with tiles. The graves of the principal citizens are further diſtinguiſhed, by having *cupolas* or vaulted chambers, of three, four, or more yards ſquare built over them: and as theſe very frequently lie open, and occaſionally ſhelter us from the inclemency of the weather, the *demoniac* (*Mar.* i. 3.) might with propriety enough have *had his dwellings among the tombs*: as others are ſaid, *If.* lxv. 4. *to remain among the graves, and to lodge in the monuments.* And as all theſe different ſorts of tombs and ſepulchres, with the very walls likewiſe of their reſpective *cupolas* and encloſures, are conſtantly kept clean, white-waſhed, and beautified, they continue to illuſtrate thoſe expreſſions of our Sa-

Some texts of Scripture alluding thereto.

[9] *Theſe they call* [حباس] Hab-ouſe, i. e. *Things ſet apart for pious uſes.*

[1] Theſe ſeem to be the ſame with the περίβολοι of the ancients. Thus *Euripides Troad.* ver. 1141.

Αλλ' αὐλὶ κέδρῳ περιβόλων τε λαΐνων
Εν τῇδε θάψαι παῖδα.

viour, where he mentions *the garniſhing of the ſepulchres*, Matth. xxiii. 29. and (℣ 27.) where he compares the *Scribes, Phariſees, and hypocrites, to whited ſepulchres, which indeed appear beautiful outward, but are within full of dead mens bones and all uncleanneſs.* After the funeral is over, the female[2] relations, during the ſpace of two or three months, go once a week to weep over the grave and perform their *parentalia*[3].

SECT. VI.

Of the habitations of the Bedoween Arabs *and* Kabyles.

The habitation of the Bedoweens.

HAVING thus deſcribed the ſeveral buildings peculiar to the cities and towns of this country, let us now take a view of the habitations of the *Bedoweens* and *Kabyles*. Now the *Bedoweens*, as their great anceſtors the *Arabians* did before them, (*Iſ.* xiii. 20.) live in tents, called *hhymas*[4], from the ſhelter which they afford the inhabitants; and *beet el ſhaar*, i. e. *houſes of hair*, from the materials or webs of goats hair, whereof they are made. They are the very ſame which the ancients called *mapalia*[5]; and being then, as they are to this day, ſecured from the weather, by a covering only of ſuch haircloth, as our coal-ſacks are made of, might very juſtly be deſcribed by *Virgil* to have *(rara tecta) thin roofs*. The colour of them is beautifully alluded to, *Cant.* i. 5. *I am black, but comely like the tents of Kedar.* For nothing certainly can afford a more delightful proſpect, than a large extenſive plain, whether in its verdure, or even ſcorched up by the ſun-beams, than theſe moveable habitations pitched in circles upon them. When we find any number of theſe tents together, (and I have ſeen from three to three hundred) then, as it has been already taken notice of in the *preface*, they are uſually placed in a

[2] Notatum fuit in omnibus ſacris, fœminini generis victimas eſſe potiores. Vid. *Alex. ab Alex. Gen Dier.* l. iii. cap. 12. *De parentalibus* ſ. cœnis ferialibus.

[3] Convivia quæ in parentum aut propinquorum funere fieri conſueverunt. Vid. *Alex. ab Alex.* ut ſupra. *Lex. Pitiſc.*

[4] Sc. a حام operuit locum umbræ captandæ ergo, &c. Vid. *Gol.* in voce.

[5] Qualia *Maurus* amat diſperſa *mapalia* Paſtor.
Sil. Ital. lib. xvii. 90.

Et ſolitus vacuis errare *mapalibus* Afer
Venator. *Lucan.* l. iv. 684.

Familiæ aliquot *(Numidarum)* cum *mapalibus* pecoribuſque ſuis (ea pecunia illis eſt) perſecuti ſunt regem. *Liv.* l. xxix. § 31. *Numidas* poſitis *mapalibus* conſediſſe. *Tac. Ann.* l. iv. § 25.

circle

circle, and conſtitute a *dou-war*. The faſhion of each tent is of an oblong figure, not unlike the bottom of a ſhip turned upſide down, as *Salluſt* [7] has long ago deſcribed them. However, they differ in bigneſs, according to the number of people who live in them; and are accordingly ſupported, ſome with one pillar, others with two or three; whilſt a curtain or carpet, let down upon occaſion from each of theſe diviſions, turns the whole into ſo many ſeparate apartments. Theſe tents are kept firm and ſteady, by bracing or ſtretching down their eves with cords, tied to hooked wooden pins, well pointed, which they drive into the ground with a mallet; one of theſe pins anſwering to the *nail*, as the mallet does to the *hammer*, which *Jael* uſed in *faſtening to the ground the temples of Siſera*, Judg. iv. 21. The pillars, which I have mentioned, are ſtrait poles, eight or ten feet high, and three or four inches in thickneſs; ſerving, not only to ſupport the tent itſelf, but, being full of hooks fixed there for the purpoſe, the *Arabs* hang upon them their cloaths, baſkets, ſaddles, and accoutrements of war. *Holofernes*, as we read in *Judith*, xiii. 16. made the like uſe of the pillar of his tent, by hanging his *fauchion* upon it: where it is called the *pillar of the bed*; from the cuſtom, perhaps, that has always prevailed in theſe countries, of having the upper end of the carpet, matraſs, or whatever elſe they lie upon, turned, from the ſkirts of the tent towards the center of it. But *the* [κωνωπεῖον] *canopy*, as we render it (*ver.* 9.) ſhould, I preſume, be rather called the *gnat*, or *muſkeeta-net*, which is a cloſe curtain of gauze or fine linen, uſed, all over the *eaſt*, by people of better faſhion, to keep out the flies. But the *Arabs* have nothing of this kind; who, in taking their reſt, lie ſtretched out upon the ground, without bed, matraſs, or pillow; wrapping themſelves up only in their *hykes*, and lying (as they find room) upon a mat or carpet, in the middle or in the corner of the tent. Thoſe, indeed, who are married, have each of them a portion of the tent to themſelves, canton'd off with a curtain: the reſt accommodate themſelves, as conveniently as they can, in the manner I have deſcribed. The deſcription which *Mela* [8] and *Virgil* have left us of the manner of living, and of the decampments among the *Libyan* ſhepherds, even to the circumſtance of carrying along with them their faithful domeſtic animals, are as juſtly drawn up, as if they had made their obſervations at this time.

The method of lying in them.

[7] Ædificia *Numidarum*, quæ *mapalia* illi vocant, oblonga, incurvis lateribus tecta, quaſi navium carinæ eſſent. *Salluſt. Bell. Jug.* § 21.

[8] Vid. EXCERPTA ex *P. Mela*.

Quid

Quid tibi paſtores Libyæ, *quid paſcua verſu*
Proſequar, & raris habitata mapalia tectis?
Sæpe diem noctemque & totum ex ordine menſem
Paſcitur, itque pecus longa in deſerta ſine ullis
Hoſpitiis: tantum campi jacet: omnia ſecum
Armentarius Afer *agit, tectumque, laremque*
Armaque, Amyclæumque canem, Cræſſamque *pharetram.*

Georg. iii. ver. 339.

The habitations of the Kabyles.

From the *dou-wars* of the *Bedoweens*, who live chiefly in the plains, we are to aſcend to the mountainous *Daſhkras* of the *Kabyles*, which conſiſt of a number of *gurbies* [9], as the *Dou-wars* do of *hhymas*. Theſe *gurbies* are generally raiſed either with hurdles, daubed over with mud, or elſe they are built out of the materials of ſome adjacent ruins, or elſe with ſquare cakes of clay baked in the ſun. The roofs are covered with ſtraw or turf, ſupported by reeds, or branches of trees. There is rarely more than one chamber in the largeſt of them, which ſerves for a kitchen, dining-room, and bed-chamber; beſides one corner of it that is reſerved, as I ſhould have mentioned alſo in the *hhymas*, for their foles, calves, and kids. As theſe hovels are always fixed and immoveable, they are undoubtedly what the ancients called *magalia* [1]; and therefore, *Carthage* itſelf, before the time of *Dido*, was nothing more than one of theſe *daſhkras* [2].

The faſhion of their gurbies.

Theſe gurbies *the ancient* magalia, *or* magaria.

The ſhowiah, *or language of the* Kabyles.

The *Kabyles*, from their ſituation [3] and language, (for all the reſt of the country ſpeak the *Arabic* tongue) ſeem to be the only people of theſe kingdoms who can bear the leaſt relation to the ancient *Africans*. For, notwithſtanding the great variety of conqueſts, to which the low and cultivated parts of this country have been ſo often ſubject, yet it is more than probable, that all or the greater part of the mountainous diſtricts, were, from their rugged ſituation, in a great meaſure left free and unmoleſted. Whilſt the *Nomades*, therefore, of the plains, and the inhabitants of ſuch cities and villages, as were of eaſy acceſs, ſubmitted by degrees to the loſs of their old

[9] Gellio Doxius cœli filius, lutei ædificii inventor, placet exemplo ſumpto ab hirundinum nidis. *Plin. Nat. Hiſt.* l. vii. c. 56.

[1] *Magalia* dicta quaſi *magaria*, quod *magar* Punici novam villam dicunt. *Iſidor. Orig.* l. xv. cap. 12. Vid. *Boch. Chan.* l. i. cap. 24. *Magalia* quæ a vallo caſtrorum *Magar* vel *Magul* inſtar villarum fixæ erant, &c. Vid cl. *Waſſæi* not. in *Sall. Bell. Jug.* p. 285.

[2] Miratur molem *Æneas*, *magalia* quondam. *Æn.* i. 425.

[3] Vid. p. 5. 59, &c.

language, and to the introduction of ſuch new laws and cuſtoms, as were conſequent upon theſe invaſions; thoſe who retired to the mountains, and there formed themſelves into *kabylêah*, i. e. *clans*, may be ſuppoſed to have been the leaſt acquainted with thoſe novelties. It may be farther urged, that as they would be hereby obliged to converſe chiefly among themſelves, ſo, for the ſame reaſon, they would continue to be much the ſame people, and, in all probability, preſerve their original language, without any conſiderable alteration. But what this was, he muſt be a very bold conjecturer, who can, at this diſtance of time, pretend to aſcertain. The *Carthaginians*, no doubt, who poſſeſſed all this country [4], muſt, in conſequence of their many conqueſts and colonies, have in ſome meaſure introduced their own language; a ſpecimen whereof is ſtill preſerved in the *Pœnulus* of *Plautus* [5]. Other and greater changes and alterations likewiſe muſt have been introduced, by the ſucceſſive invaſions of the *Romans*, *Vandals*, *Arabs*, and *Turks*. However, the following, which may be preſumed to be ſome of the primitive words in the *Showiah* [6] (as the language of the *Kabyles* is called at preſent) do not ſeem to have the leaſt affinity with thoſe words, which convey the ſame meaning in the *Hebrew* and *Arabic* tongues. For, among many others, *thamurt*, *arghaz*, *thamtuth*, *tigarum*, *akſum*, &c. their names for *earth*, *man*, *woman*, *bread*, *fleſh*, &c. will ſcarce be found to be derivations from thoſe languages, notwithſtanding the learned authors of the *Univerſal Hiſtory* are of another opinion. But the reader is referred to the *vocabulary* of this language, as it is inſerted among the COLLECTANEA.

SECT. VII.

Of their manufactures, dreſs, or habits.

Of their manufactures, dreſs, or habits.

AFTER this deſcription of the different habitations of the *Arabs* and *Kabyles*, we may now take notice of their reſpective employments therein; by giving an account of their manufactures; which indeed, like their oil, hides, wool, and wax, are chiefly conſumed at home, and rarely permitted to be exported to foreign mar-

[4] Vid. *Boch. Chan.* in *Præfat.*

[5] *Ibid.* l. ii. cap. 1.

[6] The language of the mountaineers in *S. W. Barbary*, is called *Shillah*, differing in ſome words from the *Showiah*; but the meaning of the names I could never learn, unleſs perhaps they were called after ſome conſiderable clans, who were either the authors or conſervators of them.

kets.

kets. Carpets, which are much coarſer than thoſe from *Turkey*, are made here in great numbers, and of all ſizes. At *Algiers* and *Tunis*, there are looms for velvets, *taffitees*, and different ſorts of wrought ſilks. Coarſe linen is likewiſe made in moſt of the cities and villages; though *Suſa* is noted for producing the fineſt. Yet both the ſilks and linen are ſo inconſiderable in quantity, that the deficiencies are often to be ſupplied from the *Levant* and *Europe*. But the chief branch of their manufactories is, the making of *hykes*[7], or blankets, as we ſhould call them. The women alone are employed in this work, (as *Andromache* and *Penelope* were of old) who do not uſe the ſhuttle, but conduct every thread of the woof with their fingers. Theſe *hykes* are of different ſizes, and of different qualities and fineneſs. The uſual ſize of them is ſix yards long, and five or ſix foot broad, ſerving the *Kabyle* and *Arab* for a compleat dreſs in the day, and, *as they ſleep in their raiment*, as the *Iſraelites* did of old, *Deut.* xxiv. 13. it ſerves likewiſe for his bed and covering by night. It is a looſe but troubleſome garment; being frequently diſconcerted and falling upon the ground; ſo that the perſon who wears it is every moment obliged to tuck it up, and fold it anew about his body. This ſhews the great uſe there is of a girdle, whenever they are concerned in any active employment; and in conſequence thereof, the force of the Scripture injunction, alluding thereunto, *of having our loins girded*[8], in order to ſet about it. The method of wearing theſe garments[9], with the uſe they are of at other times

The hyke,

eaſily diſconcerted.

[7] Probably derived from حوك *howk, texuit.*

[8] Thus περιζώννυμι is uſed, *Luke* xvii. 8. *Acts* xii. 8. *Eph.* vi. 14. *Rev.* i. 13. and xv. 6. And ἀναζώννυμι, 1 *Pet.* i 13. 2 *Kings* iv. 29, and ix. 1, *&c.* Εὐπερίστατος joined with ἀμαρτία, *Heb.* xii. 1. i.e. *Sin, which is ſo well fitted to gird us in*, is alſo well illuſtrated by the faſhion, and manner of wearing theſe garments.

[9] *J. Pollux* (l. vii. c. 13.) deſcribes the uſe of the πέπλος to be ἐνδυώσασθαι τε καὶ ἐπιβάλλεσθαι, *ad induendum & inſternendum:* and in the latter of theſe ſignifications it is uſed by *Homer*, *Il.* E. ver. 194.

——— Ἀμφὶ δὲ πέπλοι
Πέπλανται.

The ſcholiaſt upon *Il.* E. ver. 734. makes the *peplus* to be a garment that was fitted to the body by a *fibula*, juſt as the *hyke* is, ὃν (ſays he) οὐκ ἐνεδύοντο, ἀλλ' ἐπερονῶντο: and ſo *Callimach.* in *Lavacr. Pallad.* ver. 70.

Δὴ ποτε γὰρ πέπλον λυσαμένα περόνας.

Lutatius upon *Statius's Thebais*, ver. 101. calls it *veſtis candida*. That it was alſo a large garment, hanging down to the feet, *&c.* appears from the following epithets that are given to it by the ancients. Thus *Euripides* (in *Bacch.* ver. 40.) calls them πέπλοι ποδήρεις. *Æſchylus* (in *Choëph.* ver. 1000,) ποδηνεκὴς πέπλος. *Homer* (in *Il.* Z. ver. 442.) ἑλκεσιπέπλους; and again, *Od.* Δ. ver. 305. ταννίπεπλον.

put

put to, in ſerving for coverlids to their beds, ſhould induce us to take the finer ſorts of them at leaſt, ſuch as are worn by the ladies and perſons of diſtinction, to be the *peplus* of the antients. *Ruth's veil*, which held *ſix* meaſures *of barley*, (*Ruth* iii. 15.) might be of the like faſhion, and have ſerved extraordinarily for the ſame uſe: as were alſo *the cloaths* (τὰ ἱμάτια, the upper garments) of the *Iſraelites*, *Exod.* xii. 13. wherein they folded up their *kneading troughs:* as the *Moors*, *Arabs*, and *Kabyles* do, to this day, things of the like burden and incumbrance in their *hykes*. Their *burnooſes* alſo are often uſed upon theſe occaſions. It is very probable likewiſe, that the looſe folding garment, the *toga* [1], of the *Romans*, was of this kind. For if the drapery of their ſtatues is to inſtruct us, this is actually no other than the dreſs of the *Arabs*, when they appear in their *hykes*. The *plaid* of the *Highlanders* in *Scotland* is the very ſame. *The peplus, &c. of the ancients.*

Inſtead of the *fibula* that was uſed by the *Romans*, the *Arabs* join together with thread, or with a wooden bodkin, the two upper corners of this garment; and after having placed them firſt over one of their ſhoulders they then fold the reſt of it about their bodies. The outer fold ſerves them frequently inſtead of an apron; wherein they carry herbs, loaves, corn, *&c.* and may illuſtrate ſeveral alluſions made thereto in Scripture; as gathering the *lap* full of wild gourds, 2 *Kings* iv. 39. rendering ſeven fold, giving good meaſure into the *boſom*, *Pſalm* lxxix. 12. *Luke* vi. 38. ſhaking the *lap*, *Neh.* v. 13, *&c. &c.*

The *burnooſe*, which anſwers to our cloak, is often, for warmth, worn over theſe *hykes*. This too is another great branch of their woolen manufactory. It is wove in one piece, and ſhaped exactly like the garment of the little god *Teleſphorus*; *viz.* ſtrait about the neck, with a *cape* or *Hippocrates's* ſleeve (for a cover to the head) and wide below like a cloak. Some of them likewiſe are fringed round the bottom, like *Parthenaſpa's* and *Trajan's* garment upon the *baſſo relievo's* of *Conſtantine's* arch [2]. The *burnooſe*, without the *cape*, ſeems to anſwer to the *Roman pallium* [3]; and, with it, to the *bardocucullus* [4]. *The faſhion of it.* *Somewhat like the* Roman pallium, *and* bardocucullus.

[1] *Toga* dicta, quod velamento ſui corpus tegat atque operiat. Eſt autem pallium purum forma rotunda & *fuſiore*, &, quaſi inundante ſinu & ſub dextro veniens ſuper *humerum ſiniſtrum* ponitur: cujus ſimilitudinem in operimentis ſimulachrorum vel picturarum aſpicimus, eaſque ſtatuas Togatas vocamus. Menſura togæ juſtæ, ſi ſex ulnas habeat. *Iſid. Orig.* l. xix. cap 24.

[2] Vid. *Veteres Arcus Auguſtorum*, *&c.* antiquis nummis, notiſque *Jo. Petri Bellorii* illuſtrati, *&c. Rom.* 1690. tab. XXIV. XXVIII. XXXVIII, &c.

[3] *Pallium* (ἱμάτιον) quia palam geſtetur: quod palam ſit & foris: ſub eo enim *Tunica* ſumebatur, &c. Vid. *Steph. Theſ. Ling. Lat.*

[4] Penulæ Gallicæ genus, quæ cucullum habet. Hinc *Martial.* l. xiv. 178.

Gallia Santonico veſtit te *bardocucullo*.

Several clans walk bare-headed.

If we except the *cape* of the *burnooſe*, (which is only occaſionally uſed during a ſhower of rain, or in very cold weather,) ſeveral *Arabs* and *Kabyles* go bare-headed all the year long, as *Maſiniſſa* did of old [5]; binding their temples only with a narrow fillet, to prevent their locks from being troubleſome. As the ancient *diadema* [6] might originally ſerve for this purpoſe, ſo it appears, from buſts and medals, to have been of no other faſhion. But the *Moors* and *Turks*, with ſome of the principal *Arabs*, wear, upon the crown of the head, a ſmall hemiſpherical cap of ſcarlet cloth; another great branch of their woollen *manufactory*. The *turbant*, as they call a long narrow web of linen, ſilk, or muſlin, is folded round the bottom of theſe caps, and very properly diſtinguiſhes, by the number and faſhion of the folds, the ſeveral orders and degrees of ſoldiers, and ſometimes of citizens, one from another. We find the ſame dreſs and ornament of the head, the *tiara* as it was called, upon a number of medals, ſtatues, and *baſſo relievo's* of the ancients [7].

Their temples bound with a fillet.

The caps worn by the Moors, *&c. the antient* tiara.

The turbant.

Straight-bodied frocks.

Under the *hyke*, ſome wear a cloſe-bodied frock or tunic, (a *jillebba* they call it) with or without ſleeves; which differs little from the *Roman tunica*, or habit in which the conſtellation *Boötes* is uſually painted. The χίτων, or coat of our Saviour, which *was woven without ſeam from top throughout*, John xix. 23. might be of the like faſhion. This too, no leſs than the *hyke*, is to be girded about their bodies, eſpecially when they are engaged in any labour, exerciſe, or employment; at which times they uſually throw off their *burnooſes* and *hykes*, and remain only in theſe *tunics*. And of this kind probably was the habit wherewith our *Saviour* might ſtill be cloathed, when he is ſaid *to lay aſide his garments* (ἱμάτια *pallium ſc. & peplum*, or *burnooſe* and *hyke*, *John* xiii. 4.) *and to take a towel and gird himſelf*; as was likewiſe the *fiſher's coat* [8], (John xxi. 7.) which St. *Peter girded about him*, when

Vid. *Raynaud. De Pil.* § 15. *Ferrar. De re veſt.* ii. 1. 21. *Salm. Exercit. Plin.* p. 392. *Voſſii Lex. Etym.* vel *Lex. Pitiſc.*

[5] Arbitror te audire, *Scipio*, hoſpes tuus avitus *Maſiniſſa*, quæ faciat hodie nonaginta annos natus: cum ingreſſus iter pedibus ſit, in equum omnino non aſcendere: cum equo, ex equo non deſcendere: nullo frigore adduci, ut *capite operto* ſit, &c. *Cic. De Senectute.*

[6] *Diadema* erat faſcia candida, quæ regum capitibus obligabatur. *Cæl.* l. xxiv. cap. 6.

[7] Quartum genus veſtimenti eſt rotundum pileolum, quale pictum in *Ulyſſeo* conſpicimus, quaſi, ſphæra media ſit diviſa: & pars una ponatur in capite: hoc Græci & noſtri τιάραν, nonnulli Galerum vocat, Hebræi מצנפת *Miznepheth*, Non habet acumen in ſummo, nec totum uſque ad comam caput tegit, ſed tertiam partem a fronte inopertam relinquit, &c. *Hieronym. De Veſte Sacerdot. ad Fabiolam.*

[8] The original word is ἐπενδύτης, which the *Vulgate* renders *Tunica*: others *Amiculum*, *Inducium*, *Supercilicium*, &c. from ἐπενδύομαι, *ſuperinduor*. Vid. *Leigh's Critica Sacra*, p. 149.

he

he is ſaid *to be naked*; or what the ſame perſon, at the command of the angel, (*Acts* xii. 8.) *might have girded upon him*, before he is enjoined *to caſt his garment* (ἱμάτιον) *about him*. Now the *hyke* or *burnooſe*, or both, being probably, at that time (ἱμάτιον or ἱμάτια) the proper dreſs, cloathing, or habit, of the *eaſtern nations*, as they ſtill continue to be of the *Kabyles* and *Arabs*, when they laid them aſide, or appeared without one or the other, they might very probably be ſaid to be undreſſed, or naked [9], according to the eaſtern manner of expreſſion. This ſame convenient and uniform ſhape of theſe garments, that are made to fit all perſons, may well illuſtrate a variety of expreſſions and occurrences in Scripture; which, to ignorant perſons, too much miſled by our own faſhions, may ſeem difficult to account for. Thus, among many other inſtances, we read, that *the goodly raiment of Eſau was put upon Jacob*; that *Jonathan ſtript himſelf of his garments*; and *the beſt robe was brought out and put upon the prodigal ſon*; and that *raiment* and *changes of raiment* are often given, and immediately put on, (as they ſtill continue to be in theſe eaſtern nations) without ſuch previous and occaſional alterations, as would be required amongſt us in the like diſtribution or exchange of garments.

The faſhion of their girdles.

The *girdles*, which have been occaſionally mentioned before, are uſually of worſted, very artfully woven into a variety of figures, ſuch as the *rich girdles* of the *virtuous virgins* may be ſuppoſed to have been, *Prov.* xxxi. 24. They are made to fold ſeveral times about the body; one end of which being doubled back, and ſewn along the edges, ſerves them for a purſe, agreeable to the acceptation of the ζώνη [1] in the Scriptures. The *Turks* make a further uſe of theſe girdles, by fixing therein their knives and poiniards [2]: whilſt the *hojias* (*i. e.* the writers and ſecretaries) ſuſpend in the ſame their inkhorns [3]; a cuſtom as old as the prophet *Ezekiel*, (ix. 2.) who mentions a *perſon cloathed in white linen, with an inkhorn upon his loins.*

9 To be *naked* is the ſame as to be *ill cloathed*, according to *Seneca*; *qui male veſtitum & pannoſum vidit, nudum ſe vidiſſe dicit*, ſays he, *De Benef.* l. v. 13. What *P. Mela* alſo ſays of the *Germans*, *Plerumque nudos egiſſe*; the ſame is expreſſed by *Tacitus*, by *Rejecta veſte ſuperiore*; i. e. the ἱμάτιον, or what anſwers to the *hyke* or *burnooſe*, above deſcribed. *David* alſo (2 *Sam.* vi. 14. 20.) is ſaid to be *naked*, when he had on a *linen ephod.*

1 Which in *Matth.* x. 9. and *Mark* vi. 8. we render *a purſe.*

2 The poniard of the *Arab* is made crooked, like the *copis* or *harp* of the antients. *Q. Curt.* l. iii. *De reb. Alex.* Copidas *vocant gladios leviter curvatos falcibus ſimiles.* Bonarotæ Præf. in Dempſt. Hetrur. Regal. *Brevis gladius in arcum curvatus* harpe *dictus.*

3 That part of theſe inkhorns (if an inſtrument of braſs may be ſo called) which paſſes betwixt the girdle and the tunic, and holds their pens, is long and flat; but the veſſel for the ink, which reſts upon the girdle, is ſquare, with a lid to claſp over it, they make no uſe of quills, but of ſmall reeds, (*calami*) which they cut into the ſame

It is cuſtomary for the *Turks* and *Moors* to wear ſhirts of linen, or cotton, or gauze, underneath the tunic; but the *Arabs* wear nothing but woollen. There is a ceremony indeed in ſome *dou-wars*, which obliges the bridegroom and the bride to wear each of them a ſhirt, at the celebration of their nuptials; but then, out of a ſtrange kind of ſuperſtition, they are not afterwards to waſh them or put them off whilſt one piece hangs to another. The ſleeves of theſe ſhirts are wide and open, without folds at the neck or wriſt, as ours have, thereby preventing the flea and the louſe from being commodiouſly lodged; thoſe, particularly, of the women, are oftentimes of the richeſt gauze, adorned with different-coloured ribbands, interchangeably ſewed to each other.

Neither are the *Bedoweens* accuſtomed to wear drawers; a habit, notwithſtanding, which the citizens of both ſexes conſtantly appear in; eſpecially when they go abroad or receive viſits. The virgins are diſtinguiſhed from the matrons, in having their drawers made of needle-work, ſtriped ſilk or linen, juſt as *Tamar's* garment is deſcribed, 2 *Sam.* xiii. 18. But when the women are at home and in private, then their *hykes* are laid aſide, and ſometimes their tunics; and, inſtead of drawers, they bind only a towel[4] about their loins. A *Barbary* matron, in her undreſs, appears like *Silanus* in the *Admiranda*[5].

The veils, &c. of the Moorish *women.*

When theſe ladies appear in public, they always fold themſelves up ſo cloſely in theſe *hykes*, that even without their veils, we could diſcover very little of their faces. But, in the ſummer months, when they retire to their country ſeats, they walk abroad with leſs caution; though, even then, upon the approach of a ſtranger, they always drop their veils, as *Rebekah* did upon the ſight of *Iſaac*, (*Gen.* xxiv. 65.) They all affect to have their hair, the *inſtrument of their pride*, Iſ. xxii. 12. hang down to the ground; which, after they have collected into one lock, they bind and plait it with ribbands; a piece of finery diſapproved of by the apoſtle, 1 *Pet.* iii. 3. Where nature has been leſs liberal in this ornament, there the defect is ſupplied by art, and foreign hair is procured to be interwoven with the natural. *Abſalom's hair, which was ſold* (2 Sam. xiv. 26.) *for two hundred ſhekels*, might have been applied to

ſhape with our pens; and, in the country villages, no leſs than among the *Kabyles* and *Arabs*, where galls, coperas, &c. are not to be procured, they make ink of wool calcined into powder, which they mix afterwards with water.

[4] This is called, both in *Barbary* and the *Levant*, a *footah*, [فوطة] which *Camus* (in *Golius*) makes to be a *Perſian* word, denoting *genus veſtis ſtriatæ*, ex Sindia deportari *ſolitum*. pec. *præcinctorium*.

[5] Vid. *Admirand. Roman. Antiq.* tab. XLIV.

this uſe. After the hair is thus plaited, they proceed to dreſs their heads, by tying, above the lock I have deſcribed, a triangular piece of linen, adorned with various figures in needle-work. This, among perſons of better faſhion, is covered with a *ſarmah*, as they call it, (of the like found with השרונים, *Iſ.* iii. 18.) which is made in the ſame triangular ſhape, of thin flexible plates of gold or ſilver, artfully cut through and engraven in imitation of lace, and might therefore anſwer to the *moon-like ornament*, mentioned above. A handkerchief of crape, gauze, ſilk, or painted linen, bound cloſe over the *ſarmah*, and falling afterwards careleſſly upon the favourite lock of hair, completes the head-dreſs of the *Mooriſh* ladies.

The tinging their eyes with lead ore.

But none of theſe ladies think themſelves completely dreſſed, till they have tinged their eye-lids with *al ka-hol*[6], i. e. *The powder of lead ore*. And as this is performed by firſt dipping into this powder a ſmall wooden bodkin, of the thickneſs of a quill, and then drawing it afterwards, through the eye-lids, over the ball of the eye, we have a lively image of what the prophet (*Jer.* iv. 30.) may be ſuppoſed to mean *by renting the eyes* (not as we render it, with *painting*, but) *with* פוך *lead ore*. The ſooty colour, which is thus communicated to the eyes, is thought to add a wonderful gracefulneſs to perſons of all complexions. The practice of it, no doubt, is of the greateſt antiquity: for, beſides the inſtance already taken notice of, we find that when *Jezebel* is ſaid (2 *Kings* ix. 30.) *to have painted her face*, the original words are חשם בפוך עינוה, i. e. *ſhe adjuſted* (or *ſet off*) *her eyes with the powder of pouk*, or *lead ore*. So likewiſe *Ezek.* xxiii. 40. is to be underſtood. *Karan happuc*, (i. e. the horn of *pouk* or *lead ore*, the name of *Job's* youngeſt daughter) was relative to this cuſtom and practice. The *Latin* appellation, *fucus*, is a derivative alſo from the ſame. Neither

[6] This word is rendered by *Golius* and others, *ſtibium*, antimonii ſpecies; and ſometimes *collyrium*. The *Heb.* כחל *cahhol* hath the ſame interpretation; and the verb כחלת joined with עיניך *Ezek.* xxiii. 40. is rendered, *Thou paintedſt thy eyes*. פוך is taken in the like ſignification, being rendered *antimonium*, *ſtibium*, quo ad tingenda nigrore cilia, ſeu ad venuſtandos oculos, peculiariter utebantur, color ſubniger *ex pulveribus ſtibii* confectus. *Schindl Lex.* St. *Jerom* likewiſe upon theſe words בפוך אבניך, *Iſ.* liv. 11. which we render (*I will lay*) *the ſtones with fair colours*, takes notice, quod omnes præter LXX. ſimiliter tranſtulerunt: viz. (*ſternam*) *in ſtibio lapides tuos*, in ſimilitudinem comptæ mulieris, quæ *oculos pingit ſtibio*, ut pulchritudinem ſignificet civitatis. פוך therefore, כחל, and كحل denoting the ſame mineral ſubſtance or *collyrium*, it may be preſumed, that what is called to this day *ka-hol*, (which is a rich lead ore, pounded into an impalpable powder) was the mineral which they always made uſe of.

was

was this cuſtom uſed by other *eaſtern nations* only [7], but by the *Greeks* alſo and *Romans* [8]. Among other curioſities likewiſe that were taken out of the *catacombs* at *Sahara*, relating to the *Egyptian* women, I ſaw a joint of the common reed, or *donax*, which contained one of theſe bodkins, and an ounce or more of this powder; agreeable to the faſhion and practice of theſe times.

SECT. VIII.

Of their proviſions and cookery.

PROVISIONS of all kinds are very cheap. A large piece of bread, a bundle of turneps, and a ſmall baſket of fruit, may each of them be purchaſed for an *aſper*, i. e. for the ſix hundred and ninety-ſixth part of a dollar; which is not the quarter of one of our farthings. Fowls are frequently bought for a penny or three half-pence a-piece; a full-grown ſheep for three ſhillings and ſix pence; and a cow and a calf for a guinea. A buſhel of the beſt wheat likewiſe is uſually ſold for fifteen, ſeldom ſo dear as eighteen pence; which is a great bleſſing and advantage, inaſmuch as they, no leſs than the eaſtern nations in general, are great eaters of bread [9]; it being computed that three perſons in four live entirely upon it; or elſe upon ſuch compoſitions [1] as are made of barley or wheat flour. Frequent mention is made of this ſimple diet in the *Holy Scriptures* [2]; where the fleſh of animals, though

Theſe people great eaters of bread.

[7] Ορᾷν δὲ (*Cyrus*) αὐτὸν (*Aſtyagem*) κεκοσμημένον τῇ ΟΦΘΑΛΜΩΝ ΥΠΟΓΡΑΦΗ, τῇ χρώματι· ἐνῃρίψει, τῇ κόμαις προσθέτοις, &c. *Xenoph. De Cyr. Inſt.* l. i. § 11. Ταύτῃ μοι δοκοῦσιν αἱ χρυσοφορῦσαι γυναῖκες, τῶν πλοκάμων τὰς ἐνελισμὰς αἴσσεσθαι, χρίσματά τε παρεῖων τῇ ΥΠΟΓΡΑΦΑΣ ΟΦΘΑΛΜΩΝ, τῇ βαφὰς μέλιττα τελχῶν, &c. *Cl. Alex. Pæd.* l. iii. c. 2.

[8] Vis Stibii principalis circa oculos; namque ideo etiam plerique *Platyophthalmon* id appellavere (*Dioſcorid.* l. iii. c. 99.) quoniam in calliblepharis mulierum dilatet oculos. *Plin.* l. xxxiii. c. 6.

[9] Αἰγυπτίους δ' Ἐκαταῖος· ΑΡΤΟΦΑΓΟΥΣ φησὶν εἶναι, κυλικίας ἐσθίοντας. *Athen. Deip* l. x. p. 418. Ed. *Dalechamp.* *Maſiniſſa* likewiſe, agreeable, no doubt, to the cuſtom of the *Numidians* at that time, is mentioned by *Polybius* (*Fragm.* p. 1000. ed. *Caſaub.*) as eating (συπαρὸν ἄρτον) *brown bread* very ſavourily at his tent door.

[1] *Cuſcaſſowe*, i. e. the chiefeſt of theſe compoſitions, is well deſcribed in *Phil. Tranſ.* N° 254. and in *Lowth. Abridg.* vol. iii. p. 626. When the grains of *cuſcaſſowe* are large, then the compoſition is called *hamza*. What they call *doweeda*, is the ſame with *vermezelli*; as their *bag-reah* differs not much from our pancakes, only that inſtead of rubbing the *ta-jen*, or pan wherein they fry them, with butter, they here rub it with ſoap to make them honey-comb.

[2] *Gen.* xviii. 5. and 1 *Sam.* xxviii. 22, *I will fetch a morſel of bread.* Ch. xxi. 14, *And* Abraham *took bread and a bottle of water, and gave it unto* Hagar. Ch. xxxvii. 25,

ſome-

ſometimes indeed it may be included in the *eating of bread*, or making a meal, is not often recorded.

In cities and villages, where there are publick ovens, the bread is uſually leavened; but among the *Bedoweens* and *Kabyles*, as ſoon as the dough is kneaded, it is made into thin cakes, either to be baked immediately upon the coals, or elſe in a *ta-jen*[3]. Such were *the unleavened cakes*, which we ſo often read of in Scripture: ſuch likewiſe were *the cakes* which *Sarah made quickly upon the hearth*, Gen. xviii. 6. *How they make it.*

Moſt families grind their wheat and barley at home, having two portable mill-ſtones for that purpoſe; the uppermoſt whereof, is turned round by a ſmall handle of wood or iron, that is placed in the rim. When this ſtone is large, or expedition is required, then a ſecond perſon is called in to aſſiſt; and as it is uſual for the women alone to be concerned in this employment, who ſeat themſelves over againſt each other, with the mill-ſtones between them, we may ſee not only the propriety of the expreſſion, *Exod.* xi. 5. of ſitting *behind the mill*, but the force of another, *Matth.* xxiv. 40. that *two women ſhall be grinding at the mill, the one ſhall be taken and the other left.* The cuſtom which theſe women have of ſinging, during the time they are thus employed, is the ſame with what is related in an expreſſion of *Ariſtophanes*, viz. τῶν πλισσουσῶν ἄλλη τὶς ᾠδή, as it is preſerved by *Athenæus*, *Deipn.* p. 619. edit. *Caſaub.* *How they grind their corn.*

Beſides ſeveral different ſorts of fricaſees, and of roaſted, boiled, and forced meats, (the firſt and laſt of which are always high-ſeaſoned and very ſavoury, *Gen.* xxvii. 4.) the richer part of the *Turks* and *Moors*, mix up a variety of diſhes with almonds, dates, ſweet-meats, milk, and honey; which it would be too tedious to enumerate. I have ſeen, at ſome of their feſtivals, more than two hundred diſhes, whereof forty, at leaſt, were of different kinds. But among the *Bedoweens* and *Kabyles* there are neither utenſils nor conveniencies for ſuch entertainments: two or three wooden bowls, with a pot and a kettle, being the whole kitchen furniture of the greateſt prince or *emeer*. *Their ſeveral ſorts of food.*

They ſat down to eat bread. Ch. xliii. 31, *And* Joſeph *ſaid, Set on bread.* Exod. ii. 20, *Call him, that he may eat bread.* Ch. xvi. 3, *We did eat bread to the full.* Deut. ix. 9, *I neither did eat bread, nor drink water.* 1 Sam. xxviii. 20, Saul *had eaten no bread all the day*, &c.

[3] This is a ſhallow earthen veſſel, like a frying pan, made uſe of not only for this, but other purpoſes. What is baked therein is called *ta-jen*, after the name of the veſſel; juſt as τήγανον (*Heſych.* τάγλωον) a word of the ſame ſound and import, is taken by the *Greeks*: τάγλωον appellant τὸ ἐν τηγάνῳ ἐψηθέν. (*Steph. Theſ.* p. 1460-1. *If thy oblation* (Lev. ii. 5.) *be a meat-offering*, baken *in a pan* (ἀπὸ τηγάνου) *it ſhall be of fine flour unleavened, mingled with oil.*

All

Their method of eating;

All the ſeveral orders and degrees of theſe people, from the *Bedoween* to the *Baſhaw*, eat in the ſame manner; firſt waſhing their hands, and then ſitting themſelves down croſs-legged[4], (their uſual poſture of ſitting) round about a mat, *(Pſalm* cxxviii. 3. 1 *Sam.* xvi. 11.) or a low table, where their diſhes are placed. No uſe is made of a table-cloth; each perſon contenting himſelf with a ſhare of a long towel that is careleſſly laid round about the mat or table. Knives and ſpoons likewiſe are of little ſervice; for their animal food, being always well roaſted or boiled, requires no carving. The *cuſcaſſowe*, *pillce*, and other diſhes alſo, which we ſhould reckon among ſpoon-meats, are ſerved up, in the ſame manner, in a degree of heat, little better than lukewarm; whereby the whole company eat of it greedily, without the leaſt danger of burning or ſcalding their fingers. The fleſh they tear into morſels, and the *cuſcaſſowe* they make into pellets, ſqueezing as much of them both together as will make a mouthful. When their food is of a more liquid nature, ſuch as oil and vinegar, robb, hatted milk, honey, *&c.* then, after they have broken their bread or cakes into little bits, (ψωμία or *ſops,)* they fall on as before, *dipping their hands and their morſels together* therein, *Matth.* xxvi. 23. *Ruth* ii. 14. *John* xiii. 26. At all theſe meals they feed themſelves with their right hand, the left being reſerved for more ignoble uſes.

As ſoon as any perſon is ſatisfied, he riſes up and waſhes his hands, his arms, and his beard, without taking the leaſt notice of the remaining part of the company; whilſt another takes inſtantly his place; the ſervant ſometimes (for there is no diſtinction of tables) ſucceeding his maſter.

At all theſe feſtivals and entertainments, the men are treated in ſeparate apartments from the women; *(Eſth.* i. 9.) not the leaſt intercourſe or communication being ever allowed betwixt the two ſexes.

ſaying biſmillah, *when they ſit down, &c.*

When they ſit down to theſe meals, or when they eat or drink at other times; and indeed when they enter upon their daily employments, or any other action, they always uſe the word *Biſmillah*, (i. e. *In the name of God;)* with the like ſerioufneſs and reverence alſo they pronounce the word *Alhandillah*, i. e. *God be praiſed*, when nature is ſatisfied, or when their affairs are attended with ſucceſs.

[4] Γόνυ κάμψειν, or the *bending of the knee*, *Hom. Il.* H. 118. was the very ſame action among the *Greeks*; explained by *Euſtathius* by καθεσθῆναι, *to ſit down*; viz. as the eaſtern people ſtill continue to do, *croſs legged. Æſchylus* in *Prometheus* has the ſame expreſſion for *ſitting down.*

SECT.

SECT. IX.

Of their employments and diverſions.

THE *Turks* and *Moors* are early riſers, and drink their *ſhorbah* (as they call a *meſs of pottage*) before the dawning of the day: at which time they conſtantly attend the public devotions; after their *muezzims*, or cryers, have firſt called out thrice, from the tops of their *moſques*, *Come to prayers*; *it is better to pray than to ſleep*. The ſeveral *ſtations*, *proſtrations*, and other ceremonies enjoined upon theſe occaſions, as they have been already well deſcribed by *Reland* and other authors, ſo they need not be here repeated. After they have performed this ſhort, though neceſſary duty, as they account it, and *as ſoon as the morning is light*, (*Gen.* xliv. 9.) *the men are ſent away* to their proper trades and occupations, till ten in the morning, the uſual time of dining; after which they return again to their employment till *aſa*, or the *afternoon* prayers; when all kind of work ceaſes, and their ſhops are ſhut up. The ſupper commonly follows the prayers of *magreb*, or *ſun-ſet*; and their devotions being repeated at the ſetting of the watch, or when it begins to be dark, they take their reſt immediately afterwards. In the intervals of theſe ſtated hours of public prayer, or when no buſineſs is to be tranſacted, the graver and more elderly perſons are frequently taken up in counting over their beads; repeating *ſtaffar-allah*[6] at each of them. Sometimes likewiſe, inſtead of ſitting croſs-legged or jointly upon their heels and knees, (their uſual poſture upon theſe devotional occaſions, as being the readier for their proſtrations,) they ſit down with their knees placed upright before them, (as *in covering their feet*, *Judg.* iii. 24. 1 *Sam.* xxiv. 3. i. e. *in alvo exonerando*) and putting their faces betwixt them, as *Elijah* did, (1 *Kings* xviii. 42.) offer up, in a more private and retired manner, their ejaculations and prayers. Others again there are, who mutter over by heart, moving their bodies too and fro all the time, ſuch portions of their *Koran*, as are then pitched upon for their meditation. Several of their *thalebs*, or ſcribes, are ſo well converſant with the *Koran*, that they can correctly tranſcribe it by memory, from one end to another.

The times of riſing and eating among the Moors *and* Turks.

Thoſe who are not ſo ſeriouſly and religiouſly diſpoſed, ſpend the day either in converſing with one another at the *haf-eſſs*[7]; in the

[5] *Biſmallah* is the ſame in effect with the *Jewiſh* אם יחפיץ האל, *i. e.* *if God will*, or *if God be pleaſed*; or *if the Lord will*, 1 *Cor.* iv. 19. 1 *Pet.* iii. 17.

[6] *Staffar-allah*, *i. e. God forgive me.*

[7] The holding converſations at the *haf-eſſs*, i. e. the *barber's ſhop*, ſeems to be of great antiquity; for *Theophraſtus* (as we read in *Plutarch*, *Sympoſ.* l. v. q. 5.) calls them ἄοινα συμπόσια, *banquets without wine.*

Bazar; or at the *coffee-houſes*; where they drink *coffee* [8] or *ſherbet*, and play at *cheſs*; wherein they are very dextrous; and ſometimes are ſo well matched, as to continue the ſame game, by adjournment, for ſeveral days, before it is finiſhed. The conqueror is as highly pleaſed with having a feather, as the cuſtom is, ſtuck in his *turbant*, as our gameſters would be, in having won a great ſum.

But there are ſeveral *Turkiſh* and *Mooriſh* youths, and no ſmall part likewiſe of the unmarried ſoldiers, who attend their concubines, with wine and muſick, into the fields; or elſe make themſelves merry at the tavern; a practice, indeed, expreſsly prohibited by their religion, but what the neceſſity of the times, and the uncontroulable paſſions of the tranſgreſſors, oblige theſe governments to diſpenſe with.

The *Arab* follows no regular trade or employment. His life is one continued round of idleneſs or diverſion. When no paſtime nor hunting-match calls him abroad, he does nothing all the day long, but loiter at home, *ſmoke his pipe* [9], and repoſe himſelf under ſome neighbouring ſhade. He has no reliſh at all for domeſtic amuſements, and is rarely known to converſe with his wife, or play with his children. What he values above all, is his horſe; wherein he places his higheſt ſatisfaction; being ſeldom well pleaſed or in good humour, but when he is far from home, riding at full ſpeed, or hunting.

Their dexterity in riding.

The hunting of the wild boar.

The *Arabs*, and indeed the eaſtern nations in general, are very dextrous at theſe exerciſes. I ſaw ſeveral perſons at *Kairo*, who at full ſpeed, and upon horſes ſixteen hands high, would take up from the ground a *jerrid* [1], as they called the naked ſtalk of a palm branch, that had been dropped by themſelves, or by their antagoniſts. Few there are but who can quickly hunt down a *wild boar*; the repreſentation of which ſport, as it is performed to this day, is beautifully deſigned upon one of the medallions in *Conſtantine's* [2] arch.

[8] *Coffee* (or *Cowah*, as they pronounce it) and *ſherbet* are both of them eaſtern words; the firſt of *Perſian*, the latter of *Arabic* extraction, denoting *drink*, or the *to drinkable*.

[9] This the *Arabs* call [شرب الدخان] *Shrob el Douhhan*, *drinking of ſmoke*, i. e. *tobacco*; the *Arabick* and our name being the ſame, according to what *Hernandez* relateth. *Plantam, quam Mexicenſes* Pycielt *ſeu* Yelt *vocant, ab Haitinis appellatur* Tobacus, *a quibus non ad Indos ſolum, ſed ad* Hiſpanos *id defluxit nomen, eo quod* ſuffumigiis *adminiſteretur, quæ* Tobacos *etiam nuncupare conſueverunt, a Braſilianis* Petum, *ab aliis* Herba ſacra, *a nonnullis* Nicotiana *dicitur. Hiſt. Mexican.* l. v. cap. 51.

[1] Some authors have derived the name of *Biledulgerid* from theſe branches; but without foundation. Vid. p. 4. &. 142.

[2] Vid. *Vet. Arcus Auguſtorum*, &c. Tab. XXXVI.

The

The method is this. After they have rouzed the beaſt from his retirement, and purſued it into ſome adjacent plain (the ἱππάσιμα χωρία, as *Xenophon* calls it) their firſt endeavour is, by frequently overtaking and turning it, to tire and perplex it; and then, watching an opportunity, they either throw their lance at it, at ſome diſtance, or elſe, coming cloſe by its ſide, which is the moſt valiant way, they lodge their ſpears in its body. At the hunting of the *lion*, a whole diſtrict is ſummoned to appear; who, forming themſelves firſt into a circle, encloſe a ſpace of three, four, or five miles in compaſs, according to the number of the people, and the quality of the ground, that is pitched upon for the ſcene of action. The footmen advance firſt, ruſhing into the thickets, with their dogs and ſpears, to put up the game; whilſt the horſemen, keeping a little behind, are always ready to charge, upon the firſt ſally of the wild beaſt. In this manner they proceed, ſtill contracting their circle, 'till they all at laſt either cloſe in together, or meet with ſome other game to divert them. The accidental paſtime upon theſe occaſions is ſometimes very entertaining; for, the ſeveral different ſorts of animals that lie within this compaſs, being thus driven together, or frighted from their abodes, they rarely fail of having a variety of agreeable chaces after *hares*, *jackalls*, *hyænas*, and other wild beaſts. We have, in the following lines, a beautiful deſcription of the like diverſion.

and lion.

A variety of paſtime upon the occaſion.

Si curva feras indago latentes
Claudit, & admotis paulatim caſſibus arctat.
Illæ ignem ſonitumque pavent, diffuſaque linquunt
Avia, miranturque ſuum decreſcere montem,
Donec in anguſtam ceciderunt undique vallem,
Inque vicem ſtupuere greges, ſocioque timore
Manſueſcunt: ſimul hirtus aper, ſimul urſa, lupuſque
Cogitur, & captos contemnit cerva leones. Stat. Achil. l. i. 459.

It is commonly obſerved, that, when the lion perceives himſelf in danger, nay ſometimes the very moment he is rouzed, he will ſeize directly upon the perſon who is the neareſt to him, and, rather than quit his hold, will ſuffer himſelf to be cut to pieces.

Hawking is one of the chiefeſt diverſions among the *Arabs* and gentry of the kingdom of *Tunis*. Their woods afford them a beautiful variety of *hawks* and *falcons*; for which this kingdom was remarkable two centuries ago [a]. With their *falconetti*, one of the

The Arabs &c. *delight in* hawking.

[a] Reges *Tunetenſes Cæſareæ* majeſtati ejuſque ſucceſſoribus *Hiſpaniæ* regibus, ſingulis annis in æquum, ſex equos Mauros, eoſque exquiſitiſſimos, ac duodecim eximios falcones, in æviternam beneficiorum ab ejus majeſtate acceptorum memoriam danto & offerunto. *Etrob. Diar. Exped. Tunet. a Carolo* V. *Imp.* MDXXXV.

ſmalleſt ſpecies, they uſually hunt on foot, eſpecially in the *quail* ſeaſon, at the autumnal *æquinox*, which affords them high diverſion and pleaſure.

Their method of ſhooting, &c.

Thoſe who delight in *fowling*, do not ſpring the game, as we do, with dogs; but, ſhading themſelves with an oblong piece of canvaſs, (ſtretched over a couple of reeds or ſticks) like a door, they walk with it through the ſeveral brakes and avenues, where they expect to find game. This canvaſs is uſually ſpotted, or painted with the figure of a leopard; and a little below the top of it, there is one or more holes for the fowler to look through and obſerve what paſſes before him. The *rhaad*, the *kitawiah*, *partridge*, and other gregarious birds, will, upon the approach of the canvaſs, covey together, though they were feeding before, at ſome diſtance from each other. The *woodcock*, *quail*, and ſuch birds likewiſe as do not commonly feed in flocks, will, upon ſight of this extended canvaſs, ſtand ſtill and look aſtoniſhed; which gives the ſportſman an opportunity of coming very near them; and then, reſting the canvaſs upon the ground, and directing the muzzle of his piece through one of the holes, he will ſometimes ſhoot a whole covey at a time. The *Arabs* have another, though a more laborious method of catching theſe birds; for obſerving, that they become languid and fatigued, after they have been haſtily put up twice or thrice, they immediately run in upon them, and knock them down with their *zerwattys* [3], or bludgeons, as we ſhould call them. They are likewiſe well acquainted with that method of catching partridges, which is called *tunnelling:* and, to make the capture the greater, they will ſometimes place behind the net, a cage, with ſome tame ones within it, which, by their perpetual chirping and *calling*, quickly bring down the coveys that are within hearing, and thereby decoy great numbers of them. This may lead us into the right interpretation of πέρδιξ θηρευθὴς ἐν καρδίᾳ, *Ecclus* xi. 30. which we render *like as a partridge taken* [*and kept*] *in a cage, ſo is the heart of the proud*; but ſhould be, like a *decoy partridge in a cage* [4], *ſo is*, &c.

[3] Theſe are ſhort ſticks, ſuch probably as the antient σκῆπτρα were, which being bound round the end with iron, or inlaid with pewter or braſs, ſerve thoſe *Arabs* who are not maſters of a gun, for an offenſive and defenſive weapon.

[4] Vid. *Boch. Hieroz.* part. poſt. l. i. c. 13.

SECT.

SECT. X.

Of their manners and cuſtoms; and of the Mooriſh *women, their lamentations*, &c.

THE *Arabs* retain a great many of thoſe manners and cuſtoms which we read of in ſacred, as well as prophane hiſtory. For, if we except their religion, they are the very ſame people that they were two or three thouſand years ago; without having ever embraced any of thoſe novelties in dreſs or behaviour, which have had ſo many periods and revolutions among the *Turks* and *Moors*. Upon meeting one another, they ſtill uſe the primitive ſalutation of *Salem alekum* [6], i. e. *Peace be unto you:* though by their wit or ſuperſtition they have made it a religious compliment [7], as if they ſaid, *Be in a ſtate of ſalvation.* Before the *Mahometan* conqueſts, the expreſſion was, *Allah heekha*, or, *God prolong your life*; the ſame with *Havo adoni*, the *Punic* compliment, in *Plautus*. Inferiors, out of deference and reſpect, kiſs the feet, the knees, or the garments of their ſuperiors; but children, and the neareſt relations, kiſs the head only. The poſture they obſerve in giving one another the *aſslem-mah* [8], is, to lay their right hand upon their breaſt; whilſt others, who are more intimately acquainted, or are of equal age and dignity, mutually kiſs the hand, the head, or ſhoulder of each other [9]. At the feaſt of their *byram*, and upon other great ſolemnities, the wife compliments her huſband by kiſſing his hand.

The manners and cuſtoms of the Bedoweens.

Their ſalutations.

It is here no diſgrace for perſons of the higheſt character to buſy themſelves in what we ſhould reckon menial employments. The greateſt *prince* (like *Gideon* and *Araunah* of old) aſſiſts in the moſt laborious actions of huſbandry; neither is he aſhamed to fetch a lamb from his

No employment reckoned menial among the Arabs.

[6] *And he* (Joſeph) *ſaid*, שלום לכם, the ſame with the *Arab* سلام لكم *Peace be unto you*, *Gen.* xliii. 23. *Judg.* vi. 23. and xix. 20. 1 *Sam.* xxv. 6, *&c. John* xx. 19, *Peace be unto you*, &c.

[7] The *Mahometans* love to call their religion *i-ſlamiſme*, from the *Arab. ſalama* (سلم) which in the 4th conj. is *aſlama* (اسلم) to enter into the ſtate of ſalvation; hence *eſlam* (اسلم) *the ſaving religion*, and *muſlemon*, (مسلم) or, as we call it, *muſleman*, or *muſolem*, *he that believeth therein.* Prid. Life of Mahomet, p. 11.

[8] In *Gen.* xxxvii. 4. it is ſaid, When *Joſeph's* brethren ſaw that their father loved him more than all his brethren, that they hated him, and *could not ſpeak peaceably to him*; whereas theſe laſt words ſhould be rendered thus; *they would not give him the aſſlem-mah* or the *compliment of peace.*

[9] Salutations of this kind are often mentioned in *Homer*, as practiſed by the *Greeks.*

Κύσε δέ μιν κεφαλήν τε ἠ ἄμφω φάεα καλά,
Χεῖράς τ' ἀμφοτέρας. *Odyſſ.* l. xvi. ver. 15.
Καὶ κύσεον—ὦμους. *Odyſſ.* xxi. ver. 224.
κεφαλὰς ἠ χεῖρας ἔκυσε. *Ibid.* ver. 225.

herd

herd [1] and kill it [2], whilſt the *princeſs* his wife, is impatient till ſhe has prepared her fire and her kettle to *ſeeth* and dreſs it. The cuſtom, that ſtill continues, of walkng either bare-foot [3] or with ſlippers [4], requires the ancient compliment of bringing water, upon the arrival of a ſtranger, to waſh his feet [5]. And who is the perſon that preſents himſelf firſt to do this office, and to give the *mar-habbah*, or *welcome*, but the maſter himſelf of the family? who always diſtinguiſhes himſelf by being the moſt officious; and, after his entertainment is prepared, accounts it a breach of reſpect to ſit down with his gueſts, but ſtands up all the time and ſerves them. Thus *Abraham* (as we read, *Gen.* xviii. 8.) *took butter and milk, and the calf which he had dreſſed, and ſet it before the angels, and* he ſtood by them *under the tree, and they did eat.*

The Arabs *falſe and treacherous.*

Yet this outward behaviour of the *Arab* is frequently the very reverſe of his inward temper and inclination. For he is naturally falſe, thieviſh, and treacherous [6]; and it ſometimes happens that thoſe very perſons are overtaken and pillaged in the morning, who were entertained the night before with the greateſt hoſpitality. The prophet *Jeremiah* has well deſcribed them: *In the ways*, ſays he, (iii. 2.) *haſt thou ſat for them, as the* Arabian *in the wilderneſs.*

Neither are they to be accuſed for plundering ſtrangers only, or whomſoever they may find unarmed or defenceleſs; but for thoſe many implacable and hereditary animoſities, which continually ſubſiſt among themſelves, literally fulfilling, to this day, the prophecy of the angel to *Hagar*, (*Gen.* xvi. 12.) that *Iſhmael ſhould be a wild man; his hand ſhould be againſt every man, and every man's hand againſt his.* The greateſt as well as the ſmalleſt tribes, are perpetually at variance

[1] Thus we read, *Gen.* xviii. 7. that Abraham *ran to the herd and fetcht a calf*, upon the arrival of the three angels.

[2] In this manner we find *Achilles* and *Patroclus* employed, *Hom. Il.* ix. 205, *&c.*

Achilles *at the genial feaſt preſides;*
The parts tranſfixes, and with ſkill divides.
Mean while Patroclus *ſweats the fire to raiſe.* POPE.

[3] The feet being thus unguarded, were every moment liable to be hurt and injured; and from thence perhaps the danger, without the divine aſſiſtance, which even protects us from the ſmalleſt misfortunes, of *daſhing them againſt a ſtone*, Pſalm xci. 12. which perhaps may further illuſtrate that difficult text (*Job* v. 23.) of *being in league with the ſtones of the field.* By attending ſo often as I have done to this cuſtom of walking barefoot, I am induced to imagine, that רגלך לא בצקה *Deut.* viii. 4. which we render, *thy foot did not ſwell*, ſhould rather be, *thy foot did not wear away*, (*attritus*, Hieron.) by the exerciſing of it in *Arabia Petræa* for forty years.

[5] Thus, *Gen.* xviii. 4. *Let a little water, I pray you, be fetched, and waſh your feet.* Judg. xix. 21. Luke vii. 44. *I entered into thine houſe, thou gaveſt me no water for my feet; but ſhe hath waſhed my feet with tears.*

[6] Like their predeceſſors the *Carthaginians*, who are called by *Tully* (*Orat.* ii. *contra Rull.*) *fraudulenti & mendaces.*

with

with one another; frequently occaſioned upon the moſt trivial account (p. 45;) as if they were, from the very days of their great anceſtor, naturally prone to diſcord and contention. Even under the *Turkiſh* governments, where they have ſo often ſuffered by their untimely revolts, yet, upon the leaſt diſturbance, or proſpect of a revolution, they are the firſt in arms, in hopes of getting rid of their dependency; though they are ſure that, in the end, their chains are thereby to be more ſtrongly riveted.

The Weſtern Moors *trade with a people whom they never ſee.*

However, it muſt be mentioned to the honour of the *Weſtern Moors*, that they ſtill continue to carry on a trade with ſome barbarous nations, bordering upon the river *Niger*, without ſeeing[7] the perſons they trade with, or without having once broke through that original charter of commerce, which from time immemorial has been ſettled between them. The method is this. At a certain time of the year (in the winter, if I am not miſtaken) they make this journey in a numerous *caravan*, carrying along with them coral and glaſs beads, bracelets of horn, knives, ſciſſars, and ſuch like trinkets. When they arrive at the place appointed, which is on ſuch a day of the moon, they find, in the evening, ſeveral different heaps of gold duſt, lying at a ſmall diſtance from each other, againſt which the *Moors* place ſo many of their trinkets as they judge will be taken in exchange for them. If the *Nigritians*, the next morning, approve of the bargain, they take up the trinkets, and leave the gold duſt, or elſe make ſome deductions from the latter, *&c. &c.* And in this manner tranſact their exchange without ſeeing one another, or without the leaſt inſtance of diſhoneſty or perfidiouſneſs on either ſide.

The Algerine *marriages.*

The cuſtom of the *Naſamones*[8] of plighting their troth, by drinking out of each others hands, is, at this time, the only ceremony which the *Algerines* uſe in marriage. But the contract is previouſly made betwixt the parents, wherein expreſs mention is made not only of the *ſaddock*, as they call that particular ſum of money which the bridegroom ſettles upon the bride, but likewiſe, as it was in the time of *Abraham*[9], of the

[7] In like manner the *Seres* are ſaid never to ſee or ſpeak with the people they traded with. *Euſtathius* likewiſe, upon the faith of *Herodotus*, relates, that the *Carthaginians* traded after the ſame manner with ſome people beyond *Hercules's* pillars. Vid. *Arbuthnott on coins*, p. 230.

[8] Πίςισι δὲ τοίῃσι χρέωνται· ἐκ τῆς χειρὸς διδοῖ πιεῖν, καὶ αὐτὸς ἐκ τῆς τοῦ ἑτέρου πίνει. *Herod. Melpom.* § 172.

[9] A gold and ſilver *ſarmah*, one or two ſetts of ear-rings, bracelets and ſhekels, a gold chain to hang over their breaſts, with half a dozen veſts, ſome of *brocade*, others of rich ſilk, are uſually the wedding cloaths of a lady of faſhion. Habits and ornaments of the like kind were given to the bride in the time of *Abraham*. Thus a

ſeveral changes of raiment, the quantity of jewels, and the number of ſlaves that the bride is to be attended with, when ſhe firſt waits upon her huſband. Theſe likewiſe are her property ever afterwards. The parties never ſee one another till the marriage is to be conſummated; at which time, the relations being withdrawn, the bridegroom proceeds firſt to unveil his bride [1], and then *(zonam ſolvere,)* to undreſs her. Upon forfeiture of the *ſaddock*, the huſband may put away his wife when he pleaſes; though he cannot take her again, notwithſtanding the ſtrongeſt ſolicitations, till ſhe is married and bedded to another.

The wife doth all the drudgery of the family.

The civility and reſpect which the politer nations of *Europe* pay to the weaker ſex, are looked upon here as extravagancies, and as ſo many infringements of that law of nature which aſſigns to man the pre-eminence. For the matrons of this country, though they are conſidered as ſervants indeed of better faſhion; yet they have the greateſt ſhare of toil and buſineſs upon their hands. Whilſt the lazy huſband repoſes himſelf under ſome neighbouring ſhade, and the young men and the maidens, as we read of *Rachel* [2], attend the flocks; the wives are all the day taken up, as the cuſtom was likewiſe in ancient *Greece*, either in attending their looms [3], or in grind-

golden ear-ring of half a ſhekel weight was given to *Rebekah*, *and two bracelets for her hands of ten ſhekels weight of gold*, Gen. xxiv. 22. Abraham's *ſervant* alſo *brought forth jewels of ſilver, and jewels of gold, and raiment, and gave them to* Rebekah, ver. 53. Beſides, every woman that is married, has, at leaſt, one female ſlave (who is uſually a *black)* to attend her; whilſt others have two, or more, according to their rank and quality. In this manner we find that *Hagar* was *Sarah's* handmaid; that *Rebekah*, when ſhe was betrothed to *Iſaac*, was attended by *her nurſe* (Gen. xiv. 59.) *and her damſels*, ver. 61. that *Laban* (Gen. xxiv. 24.) *gave unto his daughter* Leah, (when ſhe was married to *Jacob)* Zilpah *his maid, for a handmaid*; and unto *Rachel* (ver. 29.) (upon the like occaſion) Bilhah, *his handmaid, to be her maid. David*, inſtead of ſettling any *ſaddock* or dowry upon *Saul's* daughter, was, inſtead of it, to bring an hundred foreſkins of the *Philiſtines*, 1 *Sam.* xviii. 25.

[1] Thus *Leah*, by retaining her veil, through her own artifice, (as *Tamar* did afterwards, *Gen.* xxxviii. 14.) or by the ſubtlety and contrivance of her father *Laban*, might have paſſed for her ſiſter *Rachel*, Gen. xxix. 25. Though the night alone, the undiſtinguiſhing ſeaſon, when ſhe was brought to *Jacob*, ℣ 23. may otherwiſe account for the miſtake. And thus it is ſaid of *Ruth*, (iii. 14.) that *ſhe roſe up in the morning, before one could know another*; and of the *harlot*, 1 Kings iii. 20, 21. *When I had conſidered the child in the morning*, that *was laid in my boſom at midnight, behold*, ſays ſhe, *it was not my ſon.*

[2] It is cuſtomary, even to this day, for the children of the greateſt *emeer* to attend their flocks; as we find (*Gen.* xxix. 9.) Rachel *kept the ſheep of her father* Laban. The ſame is related of the ſeven children of the kings of *Thebes*, *Hom. Il.* vi. ver. 424; of *Antiphus* the ſon of *Priam*, *Il.* xi. ver. 106; of *Anchiſes*, *Æneas's* mother, *Il.* i. ver. 313.

[3] Like *Andromache*, *Il.* vi. ver. 491. or *Penelope*, *Odyſſ.* i. ver. 357.

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ing at the mill [4], or in making of bread, *cuſcaſſowe*, *dweeda*, and ſuch like farinaceous food: ſo far correſponding with the γυναῖκες σῖτοποιέεσθαι or σῖτοποιοί. Neither is this all; for, to finiſh the day, *at the time of the evening*, *even the time that women go out* (ὑδρεύεσθαι, *Hom. Od.* x. ver. 105.) *to draw water*, (Gen. xxiv. 11.) they are ſtill to fit themſelves out with a pitcher or a goat's ſkin [5], and, tying their ſucking children behind them, trudge it in this manner two or three miles to fetch water. Yet, in the midſt of all theſe labours and incumbrances, not one of theſe country ladies (in imitation, no doubt, of thoſe of better faſhion in cities) will lay aſide any of their ornaments; neither their noſe-jewels, (*Iſa.* iii. 22. *Ezek.* xvi. 10.) uſed ſtill by the *Levant Arabs:* neither their bracelets, or their ſhackles, *the tinkling ornaments of their feet*, (Iſa. iii. 16.) neither their ear-rings, or looking-glaſſes [6], which they hang upon their breaſts; neither the tinging their eye-lids with lead-ore: ſo prevalent is cuſtom, even in the moſt uncivilized parts of *Barbary*; and ſo very zealous are theſe homely creatures to appear in the mode and faſhion.

The Mooriſh *women and children beautiful.*

The *Arabian* women are ſwarthy, and rarely well-favoured; but the greateſt part of the *Mooriſh* women would be reckoned beauties, even in *Great Britain*. Their children certainly have the fineſt complexions of any nation whatſoever: we have a wrong notion of the *Moors* [7], in taking them for a ſwarthy people. The men, indeed, by wearing only the *tiara*, or a ſcull-cap, are expoſed ſo much to the ſun, that they quickly attain the ſwarthineſs of the *Arab*; but the women, keeping more at home, preſerve their beauty till they are thirty; at which age they begin to be wrinkled, and are uſually paſt child-bearing. It ſometimes

[4] *Hom. Odyſſ.* vii. ver. 105. *Simonid. De Mulieribus. Matth.* xxiv. 41. *Herod.* l. vii. c. 187. *Thucyd.* l. ii.

[5] There is frequent mention made of thoſe ſkins in the Holy Scriptures. Thus חמת *Gen.* xxi. 14, 15, and 19. נאד or נאוד *Joſh.* ix. 4. *Judg.* iv. 19. 1 *Sam.* xvi. 19. *Pſalm* lvi. 8. and cxix. 83. נבל 1 *Sam.* i. 24. and x. 3. *Jer.* xiii. 12. and ἀσκὸς *Matth.* ix. 17. *Mark* ii. 22. *Luke* v. 37. which ſhould be rendered *ſkins*, are improperly interpreted *bottles*.

[6] Theſe were of poliſhed *braſs* among the *Hebrew* women, as we learn from *Exod.* xxxviii. 8.

[7] The word *Moor* is generally ſuppoſed to convey the *idea* of a perſon of a dark and ſwarthy complexion: whereas it only denotes the ſituation of their country. For מעבר ſignifies a *ferry*, or *narrow part* of the *ſea*, *fretum*, *trajectus*, &c. מעברי *(Mav'ri)* conſequently will be the ſame as *(trajectaneus* ſeu *ad trajectum vivens)* a perſon who lives near ſuch a place; juſt as the *Moors* are ſituated with reſpect to the *Streights* of *Gibraltar*, the *fretum Gaditanum* or *Herculeum* of the antients. Vid. *Peritſol. Coſmogr.* edit. *T. Hyde*, p. 48. But *Bochart* deduceth the word from another original. מוחרין *Mauri*, quaſi *poſtremi* vel *occidentales* dicti, ab אחור quod & *poſterius* & *occidentem* ſonat. Plene ſcriberetur *Mauharin*, ſed gutturales paſſim elidi nemo eſt qui neſciat. *Boch. Chan.* l. i. cap. 25.

happens that one of these girls is a mother at eleven, and a grandmother at two and twenty: and as their lives are usually of the same length with those of the *Europeans*, several of these matrons have lived to see their children of many generations.

The cries the women make at their feasts and funerals.

At all their principal entertainments, and to shew mirth and gladness upon other occasions, the women welcome the arrival of each guest, by squalling out, for several times together, *loo, loo, loo* [8]. At their funerals also, and upon other melancholy occasions, they repeat the same noise [9]; only they make it more deep and hollow [1], and end each period with some ventriloquous sighs. The ἀλαλάζοντας πολλὰ, or *wailing greatly* (as our version expresses it, *Mark* v. 38.) upon the death of *Jairus's daughter*, was probably performed in this manner. For there are several women hired to act, upon these lugubrious occasions; who, like the *Præficæ*, [2] *or mourning women*, [3] of old, are *skilful in lamentation*, (*Amos* v. 16.) and great mistresses of these melancholy expressions; and indeed they perform their parts with such proper sounds, gestures, and commotions, that they rarely fail to work up the assembly into some extraordinary pitch of thoughtfulness and sorrow. The *British* factory has often been very sensibly touched with these lamentations, whenever they were made in the neighbouring houses.

[8] A corruption, as it seems to be, of הללויה *Hallelujah*. Αλαλὴ, a word of the like sound, was used by an army, either before they gave the onset, or when they had obtained the victory. Vid. *Pol. Synops.* vol. iv. p. 790. & *Mint. Lex.* in voce Ἀλαλάζω. The *Turks* to this day call out *Allah, Allah, Allah*, upon the like occasion.

[9] As if the word was related to the *Heb.* ילל, *ejulari*, (*Mic.* i. 8.) from whence perhaps our *English* word to *howl*.

[1] *Plutarch* informs us, that *Eleleu, iou, iou*, were used in this manner. Επιφωνεῖν δὲ ταῖς σπονδαῖς, ἐλελεῦ, ἰοῦ, ἰοῦ, ὧν τὸ μὲν σπεύδοντες ἀντιφονεῖν καὶ παιωνίζοντες εἰώθασι, τὸ δὲ ἐκπλήξεως καὶ ταραχῆς ἐστί. *Plutarch* in *Theseo*.

[2] *Præficæ* dicuntur mulieres ad lamentandum mortuum conductæ, quæ dant cæteris modum plangendi, quasi in hoc ipsum præfectæ. Vid. *P. Fest.* & *Non. Marcell.* in voce.

[3] *Call for the* [מקננות from קון to lament] *mourning women, that they may come—and take up a wailing for us, that our eyes may run down with tears, and our eye-lids gush out with water*, Jer. ix. 17, 18. Such like extraordinary demonstrations of sorrow, we have related, *Ps.* vi. 6, *Every night wash I my bed*, or *make I my bed to swim; I water my couch with my tears. Ibid.* cxix. 136, *Rivers of waters run down my eyes. Jer.* ix. 1, *O that my head were waters, and mine eyes a fountain of tears.* And *Lam.* iii. 48, *Mine eye runneth down with rivers of waters. The drawing of water at Mizpah*, (1 *Sam.* vii. 6.) *and pouring it out before the Lord, and fasting*, may likewise denote, in the *Eastern* manner of expression, some higher degree of grief and contrition. *Effuderunt cor suum in pœnitentia*, ut aquas *ante Deum*; as the *Chaldee* paraphrase interprets it: or, as *Vatablus, Hauserunt aquas a puteo cordis sui, et abunde lacrymati sunt coram Domino resipiscentes. Aqua effusa lacrymas significat*, says *Grotius* in locum.

No nation in the world is so much given to superstition, as the *Arabs*, or even as the *Mahometans* in general. They hang [4] about their childrens necks, the figure of an open hand, usually the right; which the *Turks* and *Moors* paint likewise upon their ships and houses, as a counter-charm to an evil eye: For five is with them an unlucky number, and *five* (meaning their fingers) *in your eyes*, is their proverb of cursing and defiance. Those of riper years carry with them some paragraphs of their *Koran*, which, (as the *Jews* did their *Phylacteries*, (*Ex.* xiii. 16. *Numb.* xv. 38.) they place upon their breast, or sew under their caps, to prevent fascination and witchcraft, and to secure themselves from sickness and misfortunes. The virtue of these scrolls and charms is supposed, likewise, to be so far universal, that they suspend them, even upon the necks of their cattle, horses, and other beasts of burthen. They place great faith and confidence in magicians and sorcerers [5], as the *Egyptians* and *Moabites* [6] did, who in old time were their neighbours: and upon some extraordinary occasions, particularly in a lingring distemper, they use several superstitious ceremonies in the sacrificing of a cock, a sheep, or a goat, by burying the whole carcase under ground; by drinking a part of the blood; or by burning or dispersing the feathers. For it is a prevailing opinion, all over this country, that a great many diseases proceed from some offence or other that has been given to the *jenoune*; a class of beings, placed by them, betwixt angels and devils. These, like the *fairies* of our forefathers, are supposed to frequent shades and fountains; and to assume the bodies of toads, worms, and other little animals, which, being always in our way, are liable every moment to be hurt and molested by us. When any person therefore is lame or sickly, he

The Arabs *given to superstition.*

and sorcery.

[4] This custom of hanging things about the neck to prevent mischief, distempers, *&c.* seems to be of great antiquity, and was common to other nations. Thus *Varro*, *De Ling. Lat.* l. vi. in fine. Præbia, *a præbendo, ut sit tutum: quod sint remedia in collo puereis. Fascinum*, collis nempe puerorum suspensum, *infantium custodem* appellat *Plinius*, l. xxviii. c. 4. The *Bulla* was worn upon the same account, as *Macrobius* tells us, *Saturn.* l. i. *Bulla gestamen erat triumphantium, inclusis intra eam remediis, quæ crederent* adversum invidiam valentissima.

[5] The several *classes* of which are enumerated in *Deut.* xviii. 10, 11; viz. such as *use divination, or is an observer of times, or an enchanter, or a witch, or a charmer, or a consulter with familiar spirits, or a wizard, or a necromancer.* They pretend to have daily instances, in these countries, of the power and efficacy of one or other of these persons, particularly in causing or taking away the influence of the *maleficium ligaminis*, or *vinculum Veneris*, which seems to have been well known in the time of *Augustus.*

Nectè tribus nodis ternos, Amarilli, *colores*,
Nectè, Amarilli, *nodos*, & Veneris *dic vincula nectо.* Virg. Ecl. viii. 77.

[6] *Viz. the* Egyptians, (Vid. *Auson.* Epist. xix. Joseph's *divining cup*, Gen. xliv. 5.) Moabites, (Balaam *went not, as at other times, to seek for enchantments*, Numb. xxiv. 1.) *&c. &c.*

fancies that he has injured one or other of theſe beings; upon which the women, who, like the antient *veneficæ*, are dextrous in theſe ceremonies, are ſent for immediately; and go, as I have ſeen them, upon a *Wedneſday*, with franckincenſe and other perfumes, to ſome neighbouring ſpring, where they ſacrifice a hen or a cock, an ewe or a ram, *&c.* according to the ſex [7] and quality of the patient, and the nature of the diſeaſe.

SECT. XI.

Of their ſuperſtitions; with an account of their ſaints or Marabbutts, &c.

Their Marabbutts *much eſteemed.*

THE *Mahometans* have a great veneration for their *Marabbutts*, who are generally perſons of a rigid and auſtere life, continually employing themſelves either in counting over their beads [8], or elſe in meditation and prayer. This ſaintſhip goes by ſucceſſion; and the ſon is entitled to the ſame reverence and eſteem with the father, provided he can keep up and maintain the ſame gravity and *decorum*.

Some pretend to work miracles, viz.

Some of them alſo ſhare in the ſame reputation with their prophet, of receiving viſions, and converſing with the deity; whilſt others, who pretend to work miracles, are endowed with gifts, which *Mahomet* [9] himſelf durſt not pretend to. When I was, (*An.* 1732.) near the river *Arhew*, with *Seedy Muſtafa*, the *Kaleeſa* of the weſtern province, he told me, in the preſence of a number of *Arabian Shekhs*, who vouched for the fact, that *Seedy Ben Mukha-lah*, a *Marabbutt* hard by, had a ſolid iron bar, which, upon command, would give the ſame noiſe with a cannon, and do the like execution; and that once, the whole *Algerine* army, upon demanding too exorbitant a tax from the *Arabs* under his protection, were put to flight by the miracle. Yet notwithſtanding the frequency, as they pretended, of the experiment, notwithſtanding the merit I urged there would be, of convincing a *Chriſtian* of the truth of it; beſides the ſolicitations and intreaties of the whole company that this *Marabbutt* ſhould be ſent for; *Seedy ben Mukha-lah* [1] had too much policy to appear, and hazard his reputation. But I had

Seedy Ben Mukha-lah,

[7] *Viz.* A male being ſacrificed for the female ſex, *&c.*

[8] In touching each bead of their chaplet, conſiſting uſually of ninety nine, they either ſay *Alhamdillah*, *God be praiſed*; *Allah Kibeer*, i. e. *God is great*, or استغفر الله *Staffour Allah*, *God forgive me*. Vid. p. 232.

[9] Vid. *Prideaux's* life of *Mahomet*, p. 18, 19.

[1] This name, by interpretation, is *The ſon of a gun*: ſeveral perſons in theſe countries having their *cognomina* from ſome quality or other, for which they are remarkable. Of this quality they are either called *Abbon*, *i. e.* father, or *Ibn*, *ben*, *i. e.* ſon of it. Thus a fat man is called *Abbon kerſh*, i. e. *the father of a belly*, &c.

better ſucceſs, near *Seteef*, with *Seedy Aſhoure*, the *Marabbutt* of the *Ammer*; a perſon famous all over the eaſtern province for the vomiting of fire. This operation, as he performed it, I ſaw ſeveral times: the firſt inſtance whereof, did indeed very much ſurprize me. For being in a mixt company, and little regarding him, I obſerved, all on a ſudden, his mouth in a blaze, and his whole body ſeemingly diſtorted with agonies. But by keeping my eye more carefully upon him, when the ſame was repeated a ſecond time, (for he had ſeveral of theſe pretended extaſies) I plainly diſcovered the whole cheat and contrivance. For during the time that his head and his hands lay concealed under his *burnooſe*, when he pretended to be converſing with the Deity, he was actually lighting the fire; and accordingly, when he was ready to diſplay it, ſuch a quantity of ſmoak attended his head and hands, in withdrawing them from under his *burnooſe*; there was ſo ſtrong a ſmell likewiſe, of tow and ſulphur, beſides ſome threads of the former, that were unfortunately engaged to his beard, that none but an ignorant and bigotted people, could be deceived by the impoſture. This I took notice of to ſome *Turks*, that were with me, who ſaw through the cheat; but the *Arabs* ſtill inſiſted upon the wonderful gift of *Seedy Aſhoure*, as the *Epheſians* did of their *Diana*; and that *Ma kan ſhy kiff hoo*, i. e. *There was none like him.* *and Seedy Aſhoure.*

Theſe people likewiſe are equally fooliſh and extravagant in their *Jaffar-eah*, as they call the pretenſions they make to the knowledge of future events and contingencies. They are not, indeed, hitherto agreed, by what extraordinary means they come at theſe revelations: though the diſcoveries they would be believed to make, are in ſuch general terms, ſo falſe, for the moſt part, and, at the beſt, dubious, and never particularly circumſtantiated, that it ſcarce deſerves the gravity or attention to enquire after their original. However, none of them ever aſſerted that they were from divine inſpiration; though there are a number of enthuſiaſts in this religion, who pretend to be full of the Deity upon other occaſions. Some attribute them to *magareah*, for ſo they call witchcraft and inchantment; others to aſtrology or the doctrine of the ſtars; whilſt their *thalebs* pretend to have the prophecies of *Aly* the ſon-in-law of their prophet; wherein they give out, that he has left them a general and chronological account of the moſt remarkable occurrences, which have happened in the world ſince his time, or which are to fall out in future ages. *Their pretences to the knowledge of future events.*

When I was at *Tunis*, in the ſpring of 1727, there were ſeveral prophecies handed about, partly, as was alledged, from this book, partly from their *Jaffar-eah*, that *Haſſan Ben Aly*, the *bey* or king at that time, was to be immediately depoſed by his nephew *Aly Baſhaw*. *A prophecy with regard to the king of Tunis.*

The

The myſtery of it was, that *Haſſan ben Aly*, otherwiſe a good and wiſe prince, had a mighty inclination to oppreſs the richeſt of his ſubjects; and, by a piece of ill-timed policy, had, ſince the beginning of his reign, neglected the natural-born *Turks*, and placed his chief confidence in *Moors* and *renegadoes*; upon whom likewiſe he beſtowed the greateſt honours and preferments. On the other hand, *Aly Baſhaw*, while he acted under him as *aga* of the *Janizaries*, behaved himſelf with ſuch courteſy, generoſity, and juſtice, that he gained the affections of that body, and the good will of the whole kingdom. *Aly Baſhaw* therefore, being, upon ſome miſunderſtanding with his uncle, fled to the mountains of *Uſelett*, he had there the hardineſs to proclaim himſelf *Bey*; and to publiſh, at the ſame time, the great injuſtice and oppreſſion that *Haſſan Ben-Aly* had always exerciſed over his ſubjects. He further exclaimed againſt the unjuſt contempt and diſregard that had all along been paid to the *Turks*, the natural ſafeguards of the kingdom; adding further, that he himſelf would immediately apply proper methods for the eaſe and ſatisfaction of them all. Taking, I ſay, all theſe circumſtances together, there was probability enough, without the concurrence of a prophecy, that ſuch a revolution might *proved falſe.* then have been brought about. Yet, notwithſtanding all theſe unfavourable circumſtances; notwithſtanding the very day and hour were confidently prefixed for *Haſſan Ben Aly's* deſtruction; he proved too ſtrong for their *Jaffar-eah*; and, provided the *Algerines* had not a few years afterwards interpoſed, he would, in all probability, have left a peaceable poſſeſſion of that kingdom to his ſon. See above, p. 64.

A prophecy that the Mahometan *dominions are to be reſtored to the* Chriſtians.

It would be too tedious to recount any more of their pretended prophecies; ſome of which, the event very obviouſly ſhewed to be falſe; whilſt others were, at the beſt, uncertain gueſſes only, or probable conjectures. We are to wait, therefore, till time and futurity determine the truth of that very remarkable one, which promiſes to the *Chriſtians* a reſtoration of all thoſe kingdoms, which they formerly loſt to the *Turks* and *Saracens*. Thus much may be obſerved of it already, that there is no part of the *Mahometan* dominions, extenſive as they are, where it is not univerſally received; and that, in conſequence thereof, the gates of their cities are carefully ſhut up, every friday, the *day of their congregation*, from ten till twelve o'clock in the morning, that being, as they ſay, the day and the time prefixed for this notable *cataſtrophe*.

CHAP. IV.

SECT. I.

Of the government of theſe kingdoms; particularly of Algiers.

The form of government among the Arabian tribes.

AS the *Arabs* have had no ſmall ſhare in the foregoing obſervations, it may be expected, that ſomething ſhould be ſaid of the form of government that ſubſiſts among them. Now though the greateſt part of theſe tribes have been under the *Turkiſh* yoke for many ages, yet they are rarely interrupted, either in what may concern the courſe of juſtice, or in the ſucceſſion to thoſe few offices and dignities that belong properly to themſelves. For, provided they live peaceably, pay regularly the eighth part of the produce of their lands, together with a ſmall poll-tax, that is annually demanded by the *Turks*, they are left in full poſſeſſion of all their private laws, privileges, and cuſtoms. Every *Dou-war* therefore may be looked upon as a little *principality*; where the family, that is of the greateſt name, ſubſtance, and reputation, uſually preſides. However this honour does not always lineally deſcend from father to ſon; but, as it was among their predeceſſors the *Numidians* [2], when the heir is too young, or ſubject to any infirmity, then they make choice of the uncle, or ſome other relation; who, for prudence and wiſdom, is judged to be the beſt qualified. Yet, notwithſtanding a deſpotic power is lodged in this perſon, all grievances and diſputes are accommodated, by calling in to his aſſiſtance one or two perſons out of each tent. And as the offender is conſidered as a brother, the ſentence is always given on the favourable ſide; and, even in the moſt enormous crimes, rarely any other puniſhment is inflicted, than baniſhment. When this perſon has the ſuperintendance over a ſingle *Dou-war*, he is commonly called the *Shekh* [3]: but when his authority reaches over ſeveral, then he has the title either of (*Shekh el Kibeer*) *great Lord* or *Elder*, or elſe of *the* (*Emeer* [4]) *prince*. As few or none either of theſe *Shekhs*, or of the *Turkiſh* and *Eaſtern kings*, *princes*, or *baſhaws* know to write their own names, all their letters

[2] Militante *Maſiniſſa* pro *Carthaginienſibus* in *Hiſpania*, pater ejus moritur: *Galæ* nomen erat. Regnum ad fratrem regis *Oeſalcem*, pergrandem natu (mos ita apud *Numidas* eſt) pervenit. *Liv.* l. xxix. § 29.

[3] شيخ *ſenex*, *ſenior*, *doctor*: aut authoritate, principatu, pietate, & arte conſpicuus. Vid. *Gol.* in voce.

[4] امير ab امر mandavit, juſſit, præcepit. *Idem.*

and

and decrees are ſtampt with their proper rings, ſeals, or ſignets, (2 *Kings* xx. 2. *Eſt.* iii. 12. *Dan.* vi. 7, *&c.*) which are uſually of ſilver or *cornelian*, with their reſpective names engraved upon them on one ſide, and the name of their kingdom or principality, or elſe ſome ſentence of their *Koran*, on the other.

The Turkiſh *government.* The government of the *Algerines*, which differs little from that of *Tunis*, conſiſts of the *Dey*, who is to be conſidered as the *Stadtholder*, and of a *Dou-wanne*, or *common council*. The *Dou-wanne*, (the ſame with *Divan*, as it is erroneouſly, though commonly written) is principally compoſed of the thirty *Yiah Baſhees*; though the *Mufti*, the *Kaddy*, and the whole army, of what degree ſoever, are ſometimes called in to aſſiſt. All affairs of moment ought to be agreed upon by this aſſembly, before they paſs into laws; and before the *Dey* is entruſted with putting them in execution. But for ſome years paſt, there has been little account made of this venerable body; which continues indeed, to be very formally convened, but then it is only, with the ſame formality, to conſent to ſuch propoſitions, as have been before-hand concerted, betwixt the *Dey* and his favourites: ſo that, in effect, the whole power is lodged in one perſon.

The office, election, &c. of the Dey. This perſon, who, at *Algiers*, is called the *Dey*, and at *Tunis*, the *Bey*, is choſen out of the army; each order, even the moſt inferior, having an equal right and title, to that dignity, with the higheſt. Every bold and aſpiring ſoldier, though taken yeſterday from the plough, may be conſidered (particularly at *Algiers*,) as the heir apparent to the throne; and, with this further advantage, that he lies under no neceſſity to wait 'till ſickneſs, or old age have removed the preſent ruler: it is enough that he can protect himſelf with the ſame *cymiter*, which he has had the hardneſs to ſheath in the breaſt of his predeceſſor. The chief command here, as it was in the declenſion of the *Roman empire*, lies open and expoſed to every bold pretender; who, if he has the reſolution only to attempt, will rarely fail to carry it. To the truth whereof, we need only appeal to that quick ſucceſſion, which, till very lately, has been among the *Deys* of *Algiers*; rarely one in ten having had the fortune to die in his bed; *i. e.* without a muſket ball or a *ſcymiter*. Even thoſe few, who have thus peaceably departed, cannot attribute it to any ſuperior regard and eſteem which the army had for them in particular; but rather to their own ſuperior good fortune, in preventing an inſurrection, by cutting off the conſpirators before they could put their deſigns in execution. This bloody and cruel method of ſucceeding to the *Deyſhip*, and of continuing peaceably in it afterwards, will appear ſtrange and ſurpriſing to us, who have been long accuſtomed to regular ſucceſſions and civi-

The Deys *frequently cut off.*

lized

lized governments; yet it is what may be very well accounted for here, where a ſtrict and regular diſcipline has been a long time wanting; where, even a private ſoldier, after a ſmall exerciſe and tryal under *theſe colours*, has the ambition to think himſelf conſiderable enough, either to puſh for the *kaftan* himſelf, or to contribute at leaſt in the promotion of another to it. However, by the many ſeaſonable executions that have been lately made of theſe aſpiring members, this factious and diſcontented humour ſeems, at preſent, to be ſomewhat purged and allayed; though in ſuch an ungovernable conſtitution as this, there will always remain ſome ſeeds of their old tumultuous principles, which, upon the leaſt favourable opportunity, may break out a-freſh, in rebellion and aſſaſſination.

SECT. II.

Of their forces and revenues; with their method of fighting and raiſing recruits.

THE whole *force* of *Algiers*, in *Turks* and *Cologlies*, is computed, at preſent, to be no more than ſix thouſand five hundred; two thouſand whereof are ſuppoſed to be *emeriti*, old and excuſed from duty; and of the four thouſand five hundred that remain, one thouſand are annually employed in relieving their garriſons, whilſt the reſt either go out with their *cruiſing* veſſels, or elſe form the three flying *camps*, which, every ſummer, attend the provincial *viceroys*. To the *Turkiſh troops* we may join about two thouſand *zwowah*, as the *Mooriſh* horſe and footmen are called: yet, notwithſtanding theſe are kept in conſtant pay, and may be ſuppoſed to augment their number, yet, being all of them hereditary enemies to the *Turks*, they are little conſidered in the real ſafeguard and defence of the government. The method therefore of keeping this large and populous kingdom in obedience, is not ſo much by force of arms, as by diligently obſerving the old political maxim, *Divide and command*. For the provincial *viceroys* are very watchful over the motions of the *Arabian* tribes, who appertain to their ſeveral diſtricts and juriſdictions; and as theſe are in continual jealouſies and diſputes with one another, the *Beys* have nothing more to do than to keep up the ferment, and throw in, at proper times, new matter for diſcord and contention. There are ſeveral clans, both of *Arabs* and *Kabyles*, who, in caſe their neighbours ſhould obſerve a neutrality, would be too hard for the whole army of *Algiers*; notwithſtanding each *Turk* values himſelf in being a match for twenty of them. When therefore there is any miſunderſtanding of this kind,

The Algerine *forces.*

the *viceroys* play one tribe againſt another; and, provided the quarrel proves equal, a few of the *Turkiſh* infantry ſeaſonably thrown in, (the *Arabian cavalry* being never able to withſtand them [5]) will be more than a balance for the enemy. By thus continually fomenting the diviſions, which always ſubſiſt among the *Arabian* princes, and exaſperating one family againſt another, theſe four or five thouſand *Turks* maintain their ground againſt all oppoſition, and lay even their neighbours, the *Tuniſeens*, and *Weſtern Moors* under great obligations, for not extending their conqueſts among them.

In their ſeveral battles and engagements, the *ſpahees*, or *cavalry*, as I have before hinted, are of little ſervice: the *Arabs*, in this reſpect, being more numerous and often victorious. It is the *infantry* that does the execution; which the *Arabs*, as never fighting on foot, are not able to withſtand, which, as we have obſerved, was the caſe of their predeceſſors. When the *cavalry* alone are concerned, as when one *Arabian* tribe is at variance with another, then each party draws itſelf up in the figure of a half moon. But as the whole army rarely falls on together, or comes to cloſe fighting, they ſeldom put the diſpute to a deciſive battle. Their fighting is always at a diſtance, as if they were running of races; ſmall parties (or *plattoons*, as we ſhould call them) continually advancing, at full career, from the main body; and, after they have diſcharged their fire-arms, or their javelins, againſt their reſpective antagoniſts, they as ſpeedily retreat to their main bodies, where others are ready for the onſet. Inſomuch, that a few perſons killed on a ſide, is reckoned a bloody battle.

Skirmiſhes of the like nature, though attended with more execution, ſeem to have been practiſed by the *Hebrew infantry* of old, *when they looked one another in the face*; as in 2 *Sam.* ii. 14. where we read of *twelve Benjamites pertaining to Iſhboſheth, playing* with the like number of *David's ſervants*, in ſight of both armies. What is alſo recorded 2 *Sam.* i. 23. of *Saul* and *Jonathan*, that *they were ſwifter than eagles*; and of *Aſahel*, 2 *Sam.* ii. 18. that *he was as light of foot as a wild roe*; and of the *Gadites*, 1 *Chr.* xii. 8. that *they were men of might, as ſwift as the roes upon the mountains*; not to mention the epithets of ποδάρκης, πόδας ὠκὺς, &c. given to the *Grecian* heroes; may all relate to theſe decurſory rencounters, and to this method of *juſting* or fighting at random.

[5] *Numidæ peditum aciem ferre nequeunt*; according to an obſervation of *Tacitus* (l. iv. 24.) which holds good to this day.

To

To make up the deficiencies in the *army*, their cruiſing veſſels are uſually ſent out, once in every five or ſix years, to the *Levant*, for recruits; which generally conſiſt of ſhepherds, outlaws, and perſons of the loweſt rank and condition. *Mahomet Baſhaw*, who was the *Dey* when I arrived, 1720, at *Algiers*, and was ſhot dead in the ſtreets a little afterwards, by a party of ſoldiers, was not aſhamed to own his extraction, in a notable diſpute which he had once with the deputy conſul of the *French* nation; *My mother*, ſays he, *ſold ſheep's feet, and my father ſold neats tongues; but they would have been aſhamed to expoſe to ſale, ſo worthleſs a tongue as thine.* Yet theſe recruits, after they have been a little inſtructed by their fellow ſoldiers, and have got caps to their heads, ſhoes to their feet, and a pair of knives to their girdle, quickly begin to affect grandeur and majeſty; expect to be ſaluted with the title of *Effendi*, or *Your Grace*; and look upon the moſt conſiderable citizens as their ſlaves, and the *conſuls* of the allied nations as their footmen. *How their armies are recruited.*

But beſides theſe *Levant Turks*, the *Dey* may, at his pleaſure, and eſpecially upon any emergency, enroll the *cologlies*, as they call the ſons of ſuch ſoldiers, who have been permitted to marry at *Algiers*. Though ſince the latter made an unſucceſsful attempt upon the government, by endeavouring to ſeize upon the *caſſaubah*, or *citadel*, they have not been much encouraged; and when they are, they are always excluded from the honour of being *Dey*, *Aga* of the *Janizaries*, and other conſiderable offices and employments. Cologlies *enrolled in the army.*

The *officers* that command this ſmall *army* (and it would be the ſame if it amounted to it's former complement of twelve thouſand) are the *Aga* or general, thirty *Yiah Baſhees* or colonels, eight hundred *Bulluck Baſhees*, or captains, and about half that number of *Oda Baſhees*, or lieutenants. The method of arriving at theſe poſts, is not by money and intereſt, but by age and ſeniority; the oldeſt ſoldier being advanced upon the death of his lieutenant, and the lieutenant upon the death of a captain, *&c. &c.* though by the *Dey's* permiſſion, a younger ſoldier may purchaſe the rank of an older, the latter degrading himſelf in return. There is another method alſo of haſtening theſe promotions: for the *Aga* is removed as often as the ſoldiers are paid, which is every two months; being ſucceeded by the *Chiah*, who is the eldeſt of the *Yiah Baſhees*; whereby a ſeat becomes vacant in the *Dou-wanne*, which is immediately filled up by the eldeſt *Bulluck Baſhee*; as he again is by the eldeſt *Oda Baſhee*, *&c. &c.* The *Aga*, after having thus paſſed through the whole courſe of his duty, is from thenceforward conſidered as *mazoule*, *emeritus*, or *The ſeveral officers of the army, and the method of their promotions.*

ſuperannuated, quietly enjoying his pay, and, according to the old poet *Ennius*,

Senio confectu' quieſcit.

The revenues of this kingdom.

The yearly *taxes* of this great and fertil kingdom, bring uſually into the *treaſury*, three hundred thouſand *dollars:* though it is computed, that the eighth part of prizes, the effects of perſons dying without children, the contributions from the diſtricts, independent of the *viceroys*, together with the frequent *avar-eas* and oppreſſions of the ſubjects, may bring in the like ſum. To compenſate this ſmallneſs in their revenues, the pay of the army is very ſmall; the youngeſt ſoldier receiving only four hundred and ſix *aſpers* every two months, and the eldeſt, or thoſe in full pay, no more than five thouſand eight hundred: whereof ſix hundred and ninety ſix (as was before obſerved,) make a dollar [6]. Now as a great number of years are required before they arrive at full pay, (the young ſoldiers receiving an augmentation only of an hundred and ſixteen *aſpers* [7] every year,) the whole *army* with regard to their demands upon the government, may be reduced to about three thouſand five hundred; whereby a ſum, leſs than two hundred thouſand dollars, *i. e.* betwixt thirty and forty thouſand pounds of our money, will defray the expence. Beſides the pay, ſuch *Yiah* and *Bulluck Baſhees* as are unmarried, have each of them eight loaves of bread a day, and the *Oda Baſhees* and private ſoldiers, who are in the ſame condition, have four; each loaf being about five ounces in weight, and three *aſpers* in value.

The pay of their ſoldiers.

SECT. III.

Of their courts of judicature, and their puniſhments.

Of their courts of judicature.

IN the ordinary diſtribution of *juſtice*, there is in this as in all other *Turkiſh* governments, an officer whom they call the *Kaddy*, who, for the moſt part, has been educated in the ſeminaries of *Stamboule* [8] or *Grand Cairo*, where, the *Roman codes* and *pandects*, tranſlated into the

[6] Sive *Thalero*, qui *Germanis* ſic dicitur a *Thale* ſeu *Dale*, i. e. *Vallis*; under *Thaler* ſeu *Daler*, q. d. *Vallenſis nummus*, a valle ſancti *Joachimi* ubi primo cuſi ſunt. Hinc factum ut tandem ſcutati omnes (quos nummos *Imperiales* vocamus) *Thaleri* hodie vocantur. Vid. *Hyd. Annot. in Bobovii liturgiam Turcarum*, p. 10. Vid. p. 230.

[7] Iſte nummulus, *Turcice* dicitur أقچه i. e. *Albulus*; unde a Græcis ſua lingua hodierna vocatur Ασπρὸς i. e. *Albus*, &c. Ἀσπρὸν pecuniam albam in genere notat. *Id.* ibid.

[8] *Conſtantinople* is called all over the *Levant*, *Stamboule* or *Stanpôle*, which ſeems rather to be the corruption or contraction of the antient name, as *Jambol* is of *Joannopolis*, than of εἰς τὴν πόλιν, as ſome authors give into. Vid. *Hyd. Not. in Coſmogr. Peritſ.* p. 52. Sir *George Wheeler's Trav.* p. 178.

Arabic language, are taught and explained, as in the univerſities of *Europe*. The *kaddy* is obliged to attend at the *court of juſtice*, once or twice a day, where he hears and determines the ſeveral ſuits and complaints that are brought before him. But as bribery is too often, and juſtly enough, charged upon the *kaddy*, all affairs of moment are laid before the *Dey*, or elſe, when he is abſent or otherwiſe employed, they are heard by the treaſurer, by the maſter of the horſe, or by other principal officers of the *regency*, who *ſit in the gate* [9] of the *palace* for that purpoſe. At all theſe tribunals, the cauſe is quickly decided; nothing more being required than the proof of what is alledged; inſomuch that a matter of debt, or treſpaſs, or of the higheſt crime, will be finally decided, and the ſentence put in execution, in leſs than an hour.

Of their puniſhments.

In caſes of debt, the debtor is uſually detained in priſon till the *chouſes* or bailiffs have ſeized upon his effects, and ſold them. If the ſale amounts to more than the debt, the *overplus* is returned to the priſoner; if it comes ſhort, he is notwithſtanding releaſed, and no future demands are to be made upon him. Leſſer offences are puniſhed with the *baſtinado* [1], i. e. with *little ſticks*, of the bigneſs of ones finger: which, like the *Roman faſces*, are brought in bundles to the place of puniſhment; where the offender receives upon his buttocks, or the ſoles of his feet, from fifty, to a thouſand ſtrokes, according to the nature and atrocity of his crime. But for unnatural luſt, not only the parts abovementioned are chaſtiſed, but the belly likewiſe; a puniſhment generally attended with death. For clipping or debaſing the publick coin, the old *Egyptian* puniſhment [2], viz. *the cutting off the hands of the tranſgreſſor*, is inflicted. When a *Jew* or a *Chriſtian* ſlave, or ſubject is guilty of murder, or any other capital crime, he is carried without the gates of the city, and burnt alive: but the *Moors* and *Arabs* are either impaled for the ſame crime, or elſe they are hung up by the neck, over the *battlements* of the city walls, or elſe they are thrown

9 Thus we read of the *elders in the gate*, (*Deut.* xxii. 15, and xxv. 7.) and (*Iſ.* xxix. 21. *Amos* v. 10.) of *him that reproveth* and *rebuketh in the gate*, and *Daniel*, ii. 49. that *he ſat in the gate of the king*. The *Ottoman* court likewiſe, ſeems to have been called *the port*, from the diſtribution of juſtice, and the diſpatch of publick buſineſs that is carried on in the gates of it.

1 It was in this manner probably, that St. *Paul* was *thrice beaten with rods*, τρὶς ἐῤῥαβδίσθην, ſays he, 2 *Cor.* xi. 25. The *Chouſes*, likewiſe, whoſe office it is to inflict this puniſhment, appear to be no other than ſo many *Roman lictors* armed out with their *faſces*.

2 *Diod. Sic.* l. i. p. 50.

upon

upon the *chingan* or hooks [3] that are fixed all over the walls below, where ſometimes they break from one hook to another, and hang in the moſt exquiſite torments, thirty or forty hours. The *Turks* are not publickly puniſhed, like other offenders. Out of reſpect to their characters, they are always ſent to the houſe of the *Aga*, where, according to the quality of the miſdemeanor, they are baſtinadoed or ſtrangled. When the women offend, they are not, out of modeſty to the ſex, expoſed to the populace, but ſent to ſome private houſe of correction; or, if the crime is capital, as when they are taken in adultery, *&c.* they are then tied up in a ſack, carried out into the ſea, and drowned [4]. The weſtern *Moors* uſe the barbarous puniſhment of ſawing the body of the criminal in two; expreſſive probably of διχοτομεῖν, *Matth.* xxiv. 51. *Luke* xii. 46. (which we render *cutting aſunder* or *cutting off:*) no leſs than of πρίεσθαι, *Heb.* xi. 37. which is tranſlated *ſawing aſunder*. For which purpoſe they prepare two boards, of a proper length and breadth, and having tied the criminal betwixt them, they proceed to the execution, by beginning at the head. *Kardinaſh*, a perſon of the firſt rank in that country, who, not long ago had been ambaſſador at the *Britiſh* court, was put to death in this manner. For it may be very juſtly obſerved, with regard to the puniſhments of theſe countries, that there is little or no regard had to the quality of the offender, but to the nature of the offence. Sometimes indeed, a pecuniary mulct will ſtop the courſe of juſtice; but if the crime is flagrant, no atonement is to be made for it, the tranſgreſſor immediately ſuffering the puniſhment, which he is thought to deſerve.

Turks *not puniſhed in publick.*

[3] *The faſtening of the body of Saul to the walls of Bethſhan,* (1 *Sam.* xxxi. 10.) might be the fixing it only to, or hanging it upon ſuch hooks as were placed there for the execution of criminals.

[4] *Tacitus* (*de morib. Germ.*) takes notice of this, as a puniſhment among the *Germans*. *Diſtinctio pœnarum, ex delicto. Proditores & transfugas arboribus ſuſpendunt, ignavos & imbelles & corpore infames, cœno ac* palude, *injecta inſuper crate.* The like puniſhment is mentioned by *Plautus. Coqui abſtulerunt; comprehendite, vincite, verberate, in* puteum condite. *Aulul. Act* ii. Sc. ver. 21. *Furca & Foſſa*, Ang. Pytte and Gallowes, *in antiquis privilegiis ſignificat juriſdictionem puniendi fures: ſc. viros ſuſpendio, fœminas* ſubmerſione—*quod & in* Scotia *hodie obſervatum intelligo.* See *Spelman's* gloſſary in the word FURCA, &c. where he quotes an inſtance of this puniſhment, out of the monuments of the church of *Rocheſter*.

SECT.

SECT. IV.

Of their naval force; together with their intereſts and alliances with chriſtian princes.

THE *naval force* of this *regency*, which, for the two laſt centuries, has been, at one time or other, a terror to the trading nations of *Chriſtendom*, is at preſent in a declining condition. If we except their *row-boats* and *brigantines*, they had only (A. D. 1732.) half a dozen capital ſhips, from thirty ſix to fifty guns; and at the ſame time had not half that number of brave and experienced captains. A general peace with the *three trading nations*, and the impoſſibility of keeping up a ſuitable diſcipline, where every private ſoldier diſputes authority with his officer, are ſome of the principal reaſons, why ſo ſmall a number of veſſels are fitted out, and why ſo few perſons of merit are afterwards willing to command them. Their want likewiſe of experience with the few engagements they have been lately concerned in at ſea, have equally contributed to this diminution of their naval character. However, if, by proper diſcipline and encouragement, they ſhould once more aſſume their wonted courage and bravery, they have always in readineſs ſuch a quantity of naval ſtores, as will put them in a capacity of making conſiderable augmentations to their *fleet*: though, even at preſent, under all theſe diſadvantages, we find them troubleſome enough to the trade of *Europe*.

Their alliances with Chriſtian *princes.*

With relation to the princes of *Europe*, this government has alliance with us, with the *French*, the *Dutch*, and the *Swedes*, and lately with the *Danes*. Great application has been often made by the *Port*, in behalf of the *Emperor's* ſubjects; yet all their interceſſions have hitherto proved ineffectual, notwithſtanding the *Algerines* acknowledge themſelves to be the vaſſals of the *Grand Senior*, and, as ſuch, ought to be intirely devoted to his orders and commands. The *Swedes* purchaſed peace, at the price of 70,000 *dollars*: and, as theſe *cruiſers* rarely meet with veſſels of that nation, it has been hitherto diſcourſed of, as a great myſtery. But the great increaſe lately in their commerce, ſeems now ſufficiently to explain it. The ſucceſs of the *Dutch*, during a war of twelve years, in deſtroying a few of their veſſels; the magnificent preſent of naval ſtores that was made, upon ratifying the peace; together with the natural timorouſneſs of the *Dey*, leſt, by further loſſes, he ſhould be reckoned *unfortunate*,

How the Swedes *and* Dutch *obtained peace with this* regency.

nate [5], (a dangerous character in this country for a commander;) were the chief and concurring reaſons for extending their friendſhip to that nation. It is certain, the greateſt part of the ſoldiers, and the ſea officers in general, very ſtrenuouſly oppoſed it: urging, that it would be in vain to arm their veſſels, when they had peace with all the three trading nations; that their loſs was inconſiderable, when compared with the riches they had obtained by the war; concluding with a very expreſſive *Arabian* proverb, that thoſe *ought never to ſow, who are afraid of the ſparrows.* As the younger ſoldiers cannot well ſubſiſt, without the money they gain from their ſhares in prizes, there has been no ſmall murmuring at the little ſucceſs which they have lately met with. And it is very probable, (as a little time perhaps will diſcover,) that, the very moment any conſiderable addition is made to their *fleet*, nay perhaps without any further augmentation, the preſent *Dey* will be obliged to leſſen the number of his alliances, from thoſe very principles, which a few years ago, engaged his predeceſſor to increaſe them.

How theſe ſeveral nations keep up their intereſts with it.

The *Algerines* have certainly a great eſteem and friendſhip for the *Britiſh* nation: and, provided there could be any ſecurity in a government, that is guided more by chance and humour, than by counſel and mature deliberation, it is very probable, that, which of the trading nations ſoever they may think fit to quarrel with, we have little to apprehend. The *Dutch* and the *Swedes*, and lately the *Danes*, are very induſtrious in cultivating a good underſtanding with them, by making annual preſents; a method hitherto very prevalent and ſucceſsful: whilſt, on the other hand, the *French* may perhaps influence them as much, by putting them in mind of the execution which their bombs did formerly to this city, and of a later inſtance of their reſentment at *Tripoly*. But as there is prudence in uſing high words and menaces at *Algiers*, it is certain, provided the *Algerines* are to be ſwayed with fear, that we have as much intereſt in Sir *Edward Sprag's* expedition at *Bou-jeiah*, as the *French* can have in that of the *Marquis d'Eſtrees* at *Algiers*. Notwithſtanding likewiſe, all the arguments that may be urged in behalf of *Marſeilles* and *Toulon*, theſe people are not to be perſuaded, but that *Minorca* and *Gibraltar*, are in a more convenient ſituation to give them diſturbance. But reaſon and argument

The intereſt that Great Britain *hath with it.*

[5] Moſt of the *Roman* emperors affected the appellation of FELIX. The patriarch *Joſeph*, *Gen.* xxix. 2. has the character of being *a proſperous man*; and that whatſoever he did, *the Lord made it to proſper*, ver. 23.

will

will not always be good politicks at this court, where the cook [6] is the *firſt miniſter*, and where an inſolent ſoldiery have too often the command. In critical conjunctures, therefore, the ground is to be maintained by the nice management and addreſs of our *conſuls*; by knowing how to make proper application to the particular paſſions of thoſe who have the *Dey's* ear; by flattering one; placing confidence in another; and eſpecially, by making a proper uſe of thoſe invincible arguments, *money*, *kaf-tans*, and *gold watches*. For, according to an old and infallible obſervation; *Give a* Turk *money with one hand, and he will permit his eyes to be plucked out by the other*.

Such was the political ſtate and condition of this *regency*, when I left it, A. D. 1732. How long it may continue ſo, will be hard to determine; becauſe what little there is here of juſtice, honeſty, or public faith, proceeds rather from fear and compulſion, than from choice and free election. For the anſwer that was once made by the *Dey* to conſul *Cole*, on his complaining of the injuries which the *Britiſh* veſſels had met with, from his cruiſers, muſt always be looked upon as fair and ingenuous; THE ALGERINES, ſays he, ARE A COMPANY OF ROGUES, AND I AM THEIR CAPTAIN.

Aly Baſhaw's *reply to conſul* Cole.

[6] *Livy* (l. xxxix. c. 6.) has an obſervation very applicable to the great eſteem which is paid to the cooks by theſe regencies. *Tum coquus, viliſſimum antiquis mancipium et æſtimatione et uſu, in pretio eſſe; et quod miniſterium fuerat, ars haberi cœpta.*

TRAVELS

OR

OBSERVATIONS

RELATING TO

SEVERAL PARTS

OF THE

LEVANT.

TOME II.

IN TWO PARTS.

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OF

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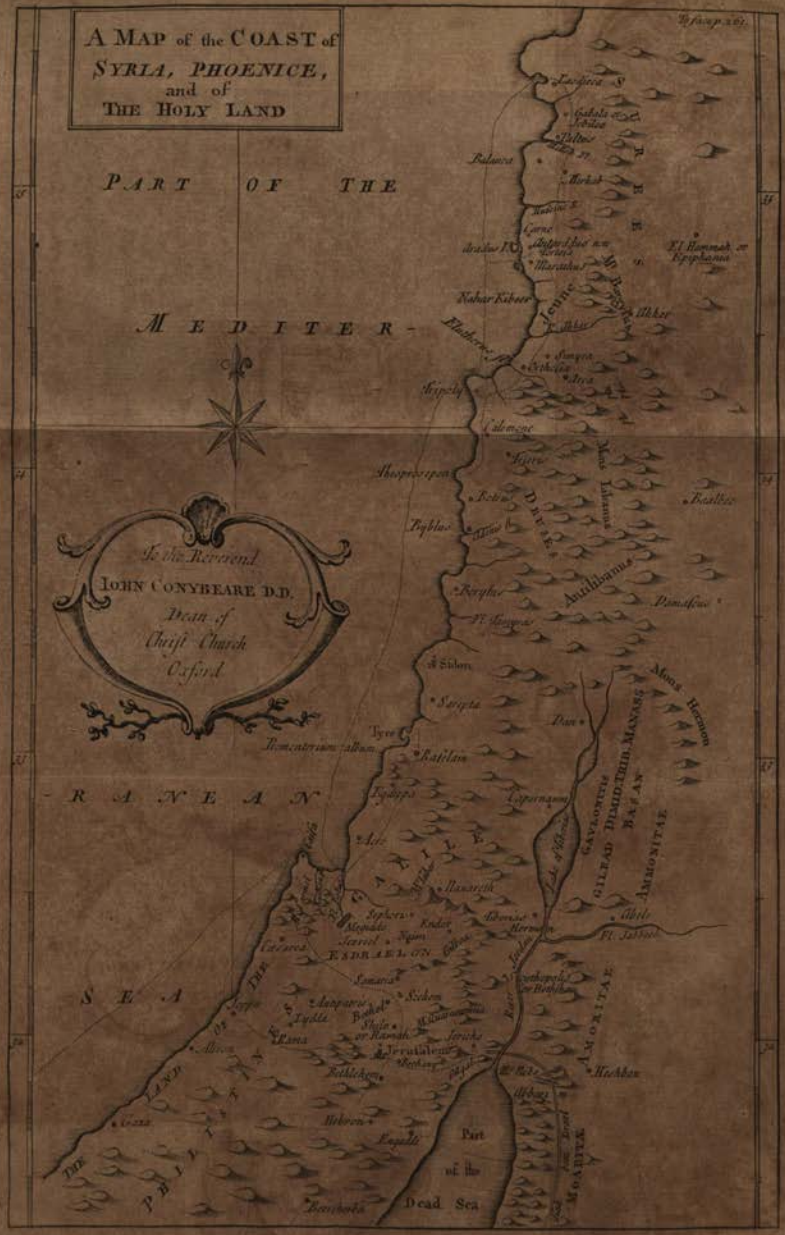

A MAP of the COAST of
SYRIA, PHOENICE,
and of
THE HOLY LAND
To the Reverend
IOHN CONYBEARE D.D.
Dean of
Christ Church
Oxford
PART OF THE
MEDITER-
RANEAN
SEA
Laodicea
Balanea
Nahar Kibeer
Jeune
Tripoly
Calamone
Theoprosopon
Byblus
Berytus
Sidon
Sarepta
Tyre
Ratelain
Tyrus
Acre
Nazareth
Sephoris
Mesiado
Jezreel
Nain
Endor
Cæsarea
ESDRAELON
Samaria
Sichem
Antipatris
Lydda
Rama
Jericho
Jerusalem
Bethlehem
Hebron
Engadi
Beersheba
Gaza
Abron
Jeppa
THE LAND OF THE PHILISTINES
Part
of the
Dead Sea
Mons Libanus
Anti-libanus
Damascus
Mons Hermon
Dan
GAVLONITIS
GILEAD DIMID. THIB. MANASS
BASAN
AMMONITAE
Gibeli
Ft. Jabbeel
Hesbon
AMORITAE
MOABITAE
Balbec
El Hammah or Epiphania
Ahkar
Simyra
Arca
Ortheisia
Aradus I.
Marathus
Cornu
Balanea
Hirkab
Laodicea
Gabala
Jebilea
Paltus
To face p. 261.

C. Frederick inven. J. Rocque Sculp.

CHAP. I.

Geographical observations relating to some parts of Syria, Phœnice, *and the* Holy Land.

I AM now entering upon those countries, where Mr. *Maundrell* has travelled before me: and, as it may be presumed, that every curious person is acquainted with that author, I shall only take notice of such things, as seem to have been either mistaken or omitted by him.

Mr. Maundrell *hath already described this country.*

Latikea, then, the first maritime city which he describes, was also the most northern part of *Syria*, that I had an opportunity of seeing. It is situated upon a rising ground, with a full prospect of the sea, and was called by the antients *Laodicea ad mare*[1], and Λευκὰ Ακτὴ,

Latikea, or LAODICEA ad mare.

[1] Εἶτα Λαοδίκεια, ἐπὶ τῇ θαλάττῃ κάλλιστα ἐκτισμένη καὶ εὐλίμενος πόλις, χῶρόν τε ἔχουσα πολύοινον πρὸς τῇ ἄλλῃ εὐκαρπίᾳ. *Strab. Geogr.* l. xvi. p. 1091. Exclusus ab *Antiochia Dolabella—Laodiceam*, quæ est in *Syria ad mare*, se contulit. *Cic. Epist.* l. xii. ep. 14.

Λαοδίκην θ' ἣ κεῖται ἐπ' ἠϊόνεσσι θαλάσσης. *Dionys. Perieg.* ver. 915.

from

from the white cliffs that lie on each ſide of it. From the citadel, we have a pleaſant, though diſtant, view of the mountains of *Caramania* and *Caſſius* to the north; and of *Jebilee*, *Merkab*, *Bannias*, as far as *Tortoſa* to the ſouth. The founder could not have pitched upon a more agreeable ſituation, affording, at the ſame time, both delight and ſecurity.

The ruins of it. Here are ſtill remaining ſeveral rows of *porphyry*, and *granate* pillars; with a large fragment of an aqueduct, the ſame perhaps that *Joſephus*[a] informs us, was built by *Herod.* It is a maſſy ſtructure without arches, and ſtretches towards the S. E. But the chief ſurviving monument of the ancient grandeur and magnificence of this place, is a large triumphal arch, of the *Corinthian* order, now converted into a *moſque*. The architrave is adorned with trophies, ſhields, battle-axes, and other military weapons; whilſt the reſt of the entablature is exceedingly bold and ſumptuous. We ſee, diſperſed all over theſe ruins, ſeveral fragments both of *Greek* and *Latin* inſcriptions, but all of them are intirely defaced.

The cothon. A furlong to the weſtward are the ruins of a beautiful *cothon*, in figure like an amphitheatre, and capacious enough to receive the whole *Britiſh navy*. The mouth of it, which opens to the weſtward, is about forty foot wide, and defended by a ſmall fort. The whole appears to have been a work and ſtructure of great labour and deſign, though, at preſent, it is ſo much filled up with ſand and pebbles, that half a dozen ſmall veſſels can only be admitted. The like accidents, ariſing chiefly from the large billows that attend the weſterly ſtorms, and bring along with them great quantities of ſand raiſed from the bottom of the adjacent ſhore, have intirely filled up the *cothon* of *Jebilee*, that a little to the northward of *Tortoſa*, thoſe of *Rou-wadde*, *Tripoly*, *Tyre*, *Acre*, and *Jaffa*. At all theſe places we cannot ſufficiently admire the great induſtry and contrivance of the ancients, in making ſuch ſafe and convenient ſtations for veſſels: at the ſame time we muſt have the utmoſt contempt for their later maſters, who, out of avarice, or want of public ſpirit, have ſuffered them to become either altogether uſeleſs, or elſe of very little ſervice to the trade and navigation of this rich and plentiful country.

Several ſarcophagi, *or coffins of ſtone.* About two furlongs to the northward of the city, near the ſea ſhore, there are ſeveral *ſarcophagi*, which are generally of an oblong ſquare ſhape, though larger than thoſe that are commonly found in *Italy*. They are, moſt of them, adorned with ſeveral beautiful decorations in

[a] Λαοδικεῦσι δὲ τοῖς πρὸς ἑλίοις, ὑδάτων εἰσαγωγὴν—ἀνέθηκε. *Joſ. De Bell. Jud.* l. i. cap. 16.

ſhells and foliage; or elſe with buſts of men and women, ox-heads, and *ſatyrs*; beſides others that are panelled; having moreover their covers ſupported by pilaſters of the *Ionic* and *Corinthian* orders. They are each of one ſtone; ſome of which have their covers, or *opercula*, ſtill remaining: and might be what were called formerly *monubiles* or *monolithi*[3].

The rocky ground, where we find theſe *ſarcophagi*, is hollowed below into a number of *cryptæ*, or ſepulchral chambers, ſome ten, others twenty or thirty foot ſquare; but the height is low, and never proportionable. The ingenious architect has left upon the front and the ſide walls of the ſtair-caſes, which lead us down to them, ſeveral curious deſigns in ſculpture and *baſſo relievo*, like thoſe upon the *ſarcophagi*. A range of narrow cells, wide enough to receive one coffin, *ſarcophagus*, or κλίνη, and long enough ſometimes for two or three, runs along the ſides of moſt of theſe ſepulchral-chambers, and appear to be the only proviſion that was made, provided indeed they were only made for the reception of the dead. *Cryptæ, or ſepulchral chambers.*

The *Greeks* have one of theſe *cryptæ* in great eſteem and veneration. They call it St. *Teckla*, in commemoration of ſome acts of penance and mortification that are ſaid to have been here performed by that firſt virgin martyr. In the middle of it there is a fountain, ſuppoſed to be inſtrumental in producing miraculous viſions, and extraordinary cures. For hither they bring ſuch perſons or children, as have the rickets, jaundice, or other diſtempers; and, after they have waſhed them with *holy water*, and perfumed them, they return with a ſtrong faith in a ſpeedy cure. Here likewiſe the aged and the infirm pretend to receive the warnings of their approaching diſſolutions; whilſt the young foreſee a long train of circumſtances and events that are to fall out in the future courſe of their lives. *The* crypta *of St.* Teckla.

The ſepulchral chambers near *Jebilee*, *Tortoſa*, and the *Serpent fountain*; together with thoſe that are commonly called the *Royal ſepulchres* at *Jeruſalem*, (all of them communicating with one another by ſmall narrow entrances,) are of the like workmanſhip and contrivance with the *cryptæ* of *Latikea*: as were likewiſe, in all probability, the cave of *Machpelah*, and the other ſepulchres (which appear to have been many) of the ſons of *Heth*, *Gen.* xxiii. 6. An ancient *ſarcophagus* ſtill remains in one of the ſepulchral chambers of *Jeruſalem*, which is of a *Parian*-like marble, in the faſhion of a common round lidded trunk, all over very elegantly carved with flowers, fruit, and foliage. Inſtead likewiſe of thoſe long narrow cells that are common in moſt of the *Other* cryptæ *of the like nature.*

[3] Vid. *Itinerar. Hieroſolym. cum notis Weſſeling*, p. 595.

other

other *cryptæ*; ſome of theſe are ſingle chambers, others have benches of ſtone, ranged one over another, upon which the coffins were to be placed. To theſe we may join the ſepulchre, where our Saviour was laid, which was alſo hewn out of the natural rock, *Matth.* xxvii. 60. and lay originally under-ground, like the others; but by St. *Helena's* cutting away the rock round about it, that the floor or bottom of it might be upon the ſame level with the reſt of the pavement of the church, it is now a *grotto above-ground* μαρμαροπλακομένη, or curiouſly overlaid with marble. It conſiſts of one chamber only, without cells, benches, or ornaments; being about ſeven foot ſquare, and ſix high; and over the place, where the body was laid (whether this was a pit, or whether the body lay bound up only in ſpices and linen upon the floor) here, for many years, an oblong table of ſtone, or *thorus*, κλεώτιον, of three foot in breadth, and nearly of the ſame height, has been erected, which ſerves the *Latins* for an altar. The low narrow door, or entrance, where the ſtone was fixed and ſeated, till rolled away by the angel, ſtill continues to conduct us within it: and as this was not ſituated in the middle, but on the left hand; as the grave likewiſe, or place where *Chriſt* was laid, may well be preſumed to have been placed within it, on the right hand, or where the altar is at preſent, we may, from theſe circumſtances, well account for *Mary* and *John* (*John* xx. 5. 11.) being obliged *to ſtoop down, before they could look into it.*

The ſepulchre of our Saviour.

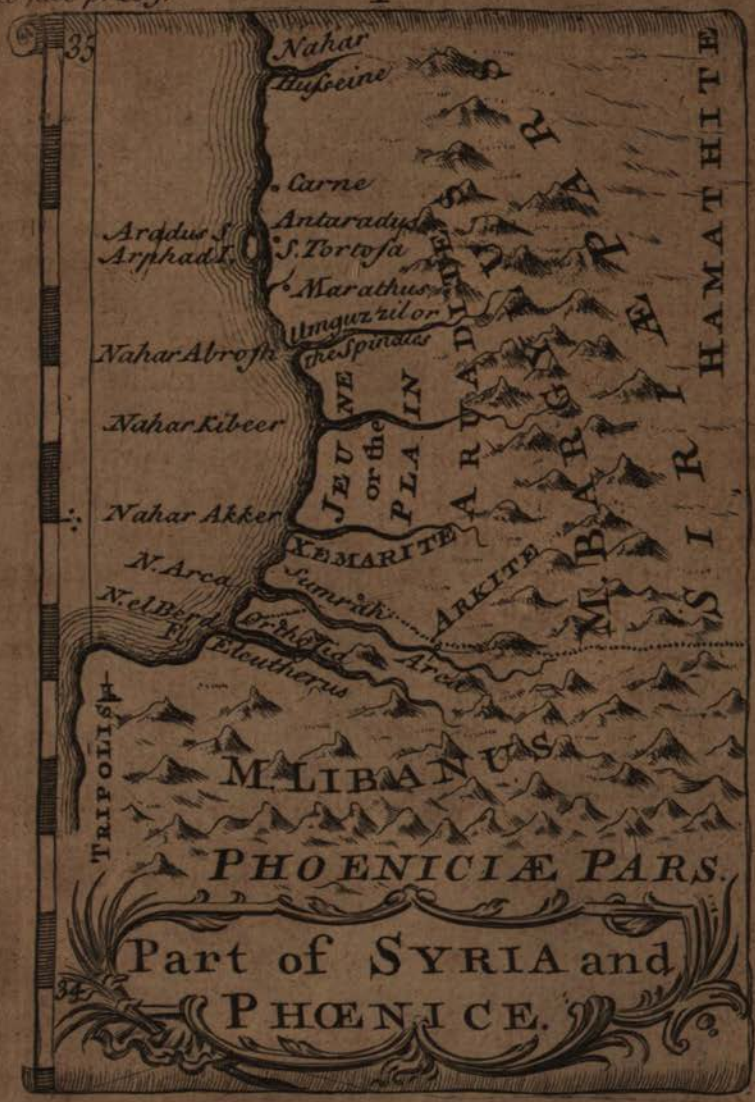
But the learned *Salmaſius*[4] has attempted to prove, that this ſepulchre was not hewn out of the rock, but was built with ſquare poliſhed ſtones, in the faſhion of a rounded arch, vault, or *cupola*, (*ſpecus*, ſc. *cameratus & fornicatus erat*) with a hole upon the top (*cum foramine deſuper*) through which the body was to be let down: which hole was afterwards to be covered with a great ſtone (*vice operculi*) inſtead of a lid. But ſuch a hole, eſpecially in ſuch a ſituation, could with no propriety be called a door, or θύρα, as the entrance into this ſepulchre is often named; neither could *Peter* and *the women*, without ladders, or ſuch like aſſiſtances, have ſo eaſily *gone in and out of it*, as they ſeem to have done, *Mark* xvi. 5, &c. Neither will this learned author be the better ſupported in the other part of his poſition, *viz.* that *this ſepulchre was* not *hewn out of the rock* (as we render μνημεῖον, ὃ ἐλατόμησεν Ἰωσὴφ ἐν τῇ πέτρᾳ, *Matth.* xxvii. 60. and μ. λελατομημένον ἐκ πέτρας, *Mark* xv. 46. and μ. λαξευτὸν, *Luke* xxiii. 53.) but that theſe words abſolutely denote a ſepulchre built with hewn ſquare poliſhed ſtones, or, in his words, *Monumentum lapide cæſo, polito & quadrato ſtructum.* Whereas the verb λατομεῖν can, by no means, be confined to ſuch a conſtruction;

Not built of hewn ſtone, but cut in the rock.

[4] *Plin. Exercit.* p. 1207.

not

To face p. 265. I



not ſignifying properly to build or to raiſe an edifice with ſtones, but only preparatory thereto (as λαξομῆσαι λίθους ξυστὸς τῷ οἰκοδομῆσαι οἶκον τῷ Θεῷ, 1 *Clr.* xxii. 2.) to cut ſtone, or to hew in ſtone; whether ſuch ſtones were אבנים or λίθοι, ſingle and moveable; or whether they were fixt and immoveable, ſuch as צור or πέτρα, always rendered a *rock*, may be ſuppoſed to be. And therefore, if we are to explain one ſcripture-phraſe by another, λαξομεῖν ἐκ τῆς πέτρας, or ἐν τῇ πέτρᾳ τὸ μνημεῖον, cannot be rendered *building a ſepulchre with ſquare moveable ſtones*, as is here pretended, but cutting or hewing it out of the צור, πέτρα, or immoveable rock; as the houſe (*Matth.* vii. 24.) is ſaid to be built ἐπὶ τὴν πέτραν. For had this ſtructure been made with hewn-ſquare-poliſhed ſtones, the term of art would have been different; it would not have been λαξομεῖν, but οἰκοδομεῖν, ποιεῖν, or λαξεύειν τὸ μνημεῖον ἐκ λίθων, or λίθοις, as might be illuſtrated from various authorities.

The ſepulchre likewiſe of *Lazarus*, according to the ſame author, (*ibid.*) was of the like faſhion and workmanſhip. But the *Evangeliſt*, (*John* xi. 38.) in deſcribing it to be a *cave*, ſeems to contradict his opinion: for a *cave*, σπήλαιον, or *ſpelunca*, is generally, and perhaps always, taken for ſome hollow place under-ground; either naturally ſuch, or made ſo artificially; not by building it with adventitious ſtones; but by ſcouping away the natural rock, as in the ſepulchre of our Saviour, and in the ſeveral caves, *cryptæ*, or *grottos* already taken notice of. The ſepulchres likewiſe of the prophets, as they are now called, with many other caves that we meet with upon the *Mount of Olives*, in the very neighbourhood of that we are now ſpeaking of, might all of them have either ſerved, or have been originally deſigned, for burying places, having their proper ſtones, or *opercula*, to lay upon them, or to ſhut them up. Here the dead bodies, eſpecially of thoſe of better faſhion, after they were *bound up in linen clothes, with ſpices, as the manner of the Jews is to bury*, were to be laid, and the ſepulchre to be ſhut up; as we find it was actually done to *Lazarus*, (*John* xi. 38. 44.) and would have been done to our Saviour, *was he to have been left in his ſepulchre, and to have ſeen corruption.* *The ſepulchre of* Lazarus.

But, to proceed in our geographical inquiries: The greateſt part of the country betwixt *Latikea* and *Jebilee* is ſtoney and mountainous; after which, we enter upon a moſt delightful plain; formerly the northern limit of the diſtrict of the *Aradians*[s]. At the mouth of the river *Melleck*, ſix miles from *Jebilee*, along this plain, the ſea forms itſelf into a ſmall bay, where we have the ruins of PALTUS.

[s] Εἶτ' (ſc. a Gabala) ἤδη ἡ τῶν Ἀραδίων παλαιὰ (Φοινίκη, *Boch. Phal.* l. iv. cap. 36.) &c. *Strab.* l. xvi. p. 1093.

the ancient city *Paltus:* and a little to the E. N. E. there is a large ſubterraneous conduit, with a number of leſſer ones detached from it; which, ſpreading themſelves, for ſeveral furlongs, through a low marſhy ground, might have been ſome ancient drain, to render this place more fit for tillage.

Not far from the *Melleck* are the ruins of *Balanea* or *Baneas*, or Πανεὰς, where the author of the *Jeruſalem Itinerary*, and *Hierocles* in his *Synecdemus*, place the boundary betwixt *Cœle-Syria* and *Phœnice*. Seven leagues further, a little to the northward of *Tortoſa*, are the traces of a *cothon*, with a ſmall pottery by it. Here we are to look for the ancient *Carne*, as the *cothon* itſelf might be the ἐπίνειον, or the *dock*, that *Strabo* [6] tells us belonged to the *Aradians*. Betwixt the pottery and *Tortoſa*, are the *cryptæ* that were mentioned above.

CARNE, *or the* Navale *of* Aradus.

Tortoſa, *the ancient* Antaradus.

Tortoſa has been generally miſtaken for *Orthoſia*, which lay a great way further to the ſouthward, upon the confines of *Syria* and *Phœnice*. And though indeed *Orthoſia* may ſeem to have an eaſy tranſition into *Tortoſa*, yet conſidering there was formerly a large convent, and two very magnificent *Chriſtian* churches at this place, *Tortoſa* is rather to be received as a corruption of *Deirdouſe*, i. e. *The place of a church*, or *convent*, as the inhabitants interpret it. And in no ſmall conformity to this circumſtance we are acquainted, that the firſt church erected to the honour of the B. Virgin was at *Tortoſa* [7]. However, as it lies at no more than half a league's diſtance, *over-againſt* the ancient *Aradus*, there is no doubt but it muſt be the *Antaradus* of the old geography. This is confirmed by *Phocas*, in his *deſcription of Syria* (apud *L. Allatii* Σύμμικτα) Ἀνταράδα ἤτοι ἡ Τάρτωσα; and likewiſe by *Willerm of Tyre* (*Itiner.* l. vii. c. 17.) *Antaradus*, ſays he, *quæ vulgari appellatione Tortoſa vocatur*. In the fourth century (*viz.* about *A. D.* CCCXXX.) it continued to be known by its old name, as appears from the *Itinerarium Hieroſolymitanum*; which, with its other name *Conſtantia* [8], given to it by its reſtorer *Conſtantius*, were diſuſed ſome centuries afterwards, in, or perhaps before, the time of the *Croiſades*. For thus we have it related by a poet of theſe times.

Non procul urbs aberat, ripæ vicina marinæ,
Fertilitate ſua promittens multa rapinæ,
Nomine quæ celebris ipſo Tortoſa vocatur.

Guil. Pariſ. *Exp. Hier.*

[6] Κάρνος· τὸ ὄπίνειον τῆς Ἀραδίας, λιμένιον ἔχον. Id. Ibid.

[7] In Tortoſa fuit prima eccleſia quæ in honorem B. Virginis ædificata fuit. Vid. *Willebr. ab Oldenburg. Itinerarium apud L. Allatii* Σύμμικτα. p. 130.

[8] *Conſtantius Antaradum* inſtauratum ſuo nomine donavit. *Theoph. Chronogr.* p. 31.

The iſland *Aradus*, the *Arpad* of the *Scriptures*, the ſeat of the *Arvadite* or *Aradite*, is called at preſent *Rou-wadde*; which, with *El Hammah*, the ancient *Hamath*, the ſeat of the *Hamathite*, *lying over againſt it*, Ezek. xlvii. 29. ten leagues to the eaſtward, are the moſt northern ſettlements of the ſons of *Canaan*. Mr. *Bedford*, in his *Chronology*, has an ingenious conjecture, eſpouſed by the *Lord Biſhop of Clogher* (*Chronol.* p. 90.) that *Ham*, in the diſperſion of mankind after the *flood*, entered *the land of Canaan* (as it was afterwards called) at the latter of theſe places; and from thence we find it ſo frequently called in *Scripture* *the entring in of Hamath* לבוא חמת. This learned *Prelate* ſuppoſes further, that *Abraham* likewiſe came into the ſame country, *north about*, as *Canaan* or *Ham* himſelf did before, by *the entring in of Hamath*. From the ſituation indeed either of *Shinar* or *Haran*, with reſpect to the *land of Canaan*, *Ham*, *Canaan* and *Abraham* might have taken this road, as well as any other, or the more open one which *Jacob* took by *Gilead* and the *Jordan* (Gen. xxxi. 21. and xxxii. 10.) yet there ſeems not to be the leaſt authority for it, from the original word בוא (or לבוא[9] with the præfix,) which ſignifies no more than barely *the going to*, or *until thou arrive* or *come at*; or *the entring in* or *into* ſuch or ſuch a place, without the leaſt regard to what might have been tranſacted there, by one or other of thoſe *patriarchs*. As *Hamath* likewiſe lies about fifty leagues to the S. S. W. of *Haran*, from whence *Abraham* departed with his father *Terah*, *Gen.* xi. 31. after he left *Ur* of the *Chaldees*, we may very well account for his *journeying*, as it is recorded, *Gen.* xii. 9. *going on ſtill*, as we may preſume, from his firſt ſetting out, *towards the ſouth*, but by no means for his *going north about*; contrary to the reſpective ſituations of thoſe places.

Rou wadde, *the* ARPAD, *and* ARADUS.

El Hammah, or *Hamath*.

The entring in of *Hamath*.

But to return to *Rou-wadde*. The proſpect of it from the continent, is wonderfully magnificent, promiſing at a diſtance a continued train of fine buildings, and impregnable fortifications. But this is entirely owing to the height and rockineſs[1] of its ſituation: for at preſent all the ſtrength and beauty it can boaſt of, lies in a weak unfortified caſtle, with a few ſmall cannon to defend it. Yet we are not to judge of the antient ſtrength of this place from its preſent condition. For it was formerly ſurrounded with a large ſtrong wall, conſiſting of ſtones of an immenſe bigneſs; which (as in many other *ſpecimens* of the antient buildings) ſo exactly tallied and correſponded with each other,

The ſtrength, &c. *of* Rou-wadde.

[9] Thus לבוא is as frequently joined in Scripture with מצרים, עיל, פרבלה, צרדה, אפלתה, &c. as with with חפת; and may be preſumed to have the ſame ſignification; viz. *the entring in*, &c. of *Egypt*, *Ephrata*, *Adad*, as among many others, *Jer.* xli. 17. *Chimham*, *which is by Bethlehem*, *as thou goeſt to enter into Egypt*.

[1] *Rou-wadde* or *Arpad* being probably derived from ריד *firmus fuit*, &c.

that the architect might very juſtly eſtimate the weight and ſymmetry alone of the materials, without cramps and mortar, to have been ſufficient to withſtand the violence of the ſea, and the engines of an enemy. During the time of its proſperity, both art and nature ſeem to have conſpired in making it a place of ſuch ſtrength and conſequence, as ſufficiently to juſtify the boaſt, *Where is the king of Arpad*, which *Sennacherib* [2] made in the conqueſt of it.

MARATHUS. The antient *Marathus* may be fixed at ſome ruins, near the *Serpent fountain*, which make, with *Rou-wadde* and *Tortoſa*, almoſt an equilateral triangle. For *Strabo* [3] tells us, that *Aradus* was ſituated betwixt its *Navale* and *Marathus*, and that the oppoſite ſhore had not the leaſt ſhelter for veſſels. The latter of theſe obſervations is very juſt; and, provided the *Navale* is the *Cothon*, which has been already taken notice of to the northward of *Tortoſa*, no place can better fall in with the ſituation of *Marathus*; inaſmuch as *Rou-wadde*, upon this ſuppoſition, will lie not only between, but very nearly equidiſtant from the *Navale* or *Marathus*.

The Maguzzel *or Spindles.* Five miles to the S.S.E. of the *Serpent fountain*, are the *Maguzzel* or *ſpindles*, as they call thoſe pointed and cylindrical little buildings, that are erected over the *cryptæ*, deſcribed by Mr. *Maundrell*. The ſituation of the country round about them, has ſomething in it ſo extravagant and peculiar to itſelf, that it can never fail to contribute an agreeable mixture of melancholy and delight to all who paſs through it. The uncommon contraſt and diſpoſition of woods and ſepulchres, rocks and grotto's; the medley of ſounds and *echo's* from birds and beaſts, *caſcades* and water-falls; the diſtant roaring of the ſea, and the compoſed ſolemnity of the whole place, very naturally remind us of thoſe beautiful deſcriptions which the antient poets have left us of the groves and retreats of their *rural deities*.

The Jeune *or plain.* A great *plain*, the *Jeune*, as the *Arabs* call it, commences a little to the ſouthward of the *Maguzzel*, and ends at *Sumrah*; extending itſelf, all the way, from the ſea to the eaſtward, ſometimes five, ſometimes ſix or ſeven leagues, 'till it is terminated by a long chain of mountains. Theſe ſeem to be the *Mons Bargylus* of *Pliny* [4]; as the *Jeune* may be the *interjacentes campi*, which he places to the north-

[2] 2 *Kings* xix. 13. [3] *Strab. Geogr.* l. xvi.

[4] In ora ſubjecta *Libano Berytus—Trieris, Calamus, Tripolis*, quæ *Tyrii & Sidonii & Aradii* obtinent. *Orthoſia, Eleutheros* flumen. Oppida *Simyra, Marathos*, contraque *Aradum Antaradus*. — Regio, in qua ſupra dicti deſinunt montes (*Libanus* ſc.) & *interjacentibus campis, Bargylus* mons incipit. Hinc rurſus *Syria*, deſinente *Phœnice*, oppida *Carne, Balanea, Paltos, Gabale*; promontorium, in quo *Laodicea* libera. *Plin.* l. v. cap. 20.

ward of *mount Libanus*. There are diſperſed all over the *Jeune*, a great number of caſtles and watch-towers, erected perhaps as well for the ſafety and ſecurity of thoſe who cultivated it, as to obſerve the motions of what enemy ſoever ſhould, at any time, pitch upon it for a ſeat of action. Theſe are pretty common in other places of *Syria* and *Phœnice*, and may be the ſame with the *watch towers*, in contradiſtinction to *the fenced cities*, as they are mentioned in *Scripture*.

Beſides theſe towers, we ſee ſeveral large hillocks upon the *Jeune*, of the ſame figure, and raiſed undoubtedly upon the like occaſion, with thoſe eminences that we call *barrows* in *England*. No place certainly can be better ſupplied with water and herbage; and conſequently more proper, either for a field of battle, or where an army could more conveniently be encamped.

Akker, *the* KER *of the* S S.

The moſt conſiderable river of the *Jeune*, is the *Akker*, ſo called from running by a city of that name, ſituated upon *mount Bargylus*, about nine leagues to the S. E. of *Tortoſa*. This muſt have been formerly as noted for its ſtrength, extent, and beauty, as it is at preſent for the goodneſs and perfection of the *apricots*, *peaches*, *nectarines*, and other fruit which it produces. May not *Akker* be the *Ker*, i. e. *the city*, which is mentioned, *Amos* ix. 7. *Have not I brought up Iſrael out of the land of Egypt, and the Philiſtines from Caphtor, and Aram from Ker?* where the ſimple reading of *Aram*, without the diſtinction of *Padan*, or *Naharaim*, may induce us to believe that *Ker* was of *Syria* or *Aram*, properly ſo called, and not of *Media* or *Meſopotamia*, the *Padan Aram* and the *Aram Naharaim* of the Scriptures.

Sumrah *the* SIMYRA, *the ſeat of the* Zemarites.

About five miles from the river *Akker*, and twenty four to the S. S. E. of *Tortoſa*, there are other conſiderable ruins, known by the name of *Sumrah*, with ſeveral rich plantations of mulberry and other fruit trees growing within and round about them. Theſe, from the very name and ſituation, can be no other than the remains of the antient *Simyra* or *Taximyra*, as *Strabo* [5] calls it, the ſeat formerly of the *Zemarites*. *Pliny* [6] makes *Simyra* a city of *Cœle-Syria*, and acquaints us, that *mount Libanus* ended there to the northward; but as *Sumrah* lies in the *Jeune*, two leagues diſtant from that mountain, this circumſtance, will better fall in with *Arca*, where *mount Libanus* is remarkably broken off and diſcontinued.

[5] A corruption from the joining of τὰ Ξύμυρα or Σίμυρα, as *Caſaubon* has obſerved upon the place.

[6] A tergo ejus (*Sidonis*) mons *Libanus* orſus, mille quingentis ſtadiis *Simyram* uſque porrigitur, quâ *Cœle-Syria* cognominatur. *Plin.* l. v. c. 20.

Five

ARKA, *the ſeat of the* Arkites.

Five miles from *Sumrah* to the E. are the ruins of *Arca*, the city of the *Arkites*, the offspring likewiſe of *Canaan*. It is built over againſt the northern extremity of *mount Libanus*, in a moſt delightful ſituation: having a proſpect, to the northward, of an extenſive plain, diverſified with an infinite variety of towers and villages, ponds and rivers; to the weſtward, it ſees the ſun ſet in the ſea, and, to the eaſtward, ſees the ſun riſe over a long and diſtant chain of mountains. Here likewiſe are not wanting *Thebaic* columns, and rich entablatures, to atteſt for the ſplendour and politeneſs that it was once poſſeſſed of. The citadel was erected upon the ſummit of an adjacent mount; which, by the figure and ſituation of it, muſt have been impregnable in former times. For it is ſhaped like a cone, or ſugar loaf, in an aſcent of fifty or ſixty degrees, and appears to have been originally intended for a *mons exploratorius*; not being a work of nature, but of art and labour. In the deep valley below, we have a briſk ſtream, more than ſufficient for the neceſſities of the place; yet it has been judged more convenient to ſupply it with water from *mount Libanus*. For which purpoſe, they have united the mountain to the city by an aqueduct, whoſe principal arch, though now broken down, could not have been leſs than a hundred foot in diameter. This city was not known to the learned editor of the *Itinerarium Hieroſolymitanum*; "qui *Arcas* "explicet et illuſtret (*ſays he*, p. 582.) alius erit."

Nahar el Berd, *the river* ELEUTHERUS.

Two leagues to the W. S. W. of *Arca*, we paſs over the *Nahar el Berd*, the *cold river*, or, according to Mr. *Maundrell's* interpretation, the *cold waters*. This ſtream ariſes from among the northern eminences of *mount Libanus*; and ſwelling, at certain times of the ſummer, by the extraordinary liquefaction of the ſnow, might from thence have received its name. Here, I preſume, we may fix the river *Eleutherus*, ſo much wanted in the old geography, which *Sandys* (p. 166.) and others after him, have made to be the ſame with the *Caſſimair*, betwixt *Sidon* and *Tyre*. Whereas *Ptolemy* [7] places it, according to the preſent poſition of the *Nahar el Berd*, ſix miles to the northward of *Tripoly*, or in the latitude nearly wherein I find it. In like manner, *Strabo* places *Orthoſia*, immediately after the *Eleutherus*, and to the northward of it: agreeable whereunto we ſtill find, upon the N.

Or-toſa, *the* ORTHOSIA.

[7]

Λαοδίκεια	ξη	ς	λε	ιβ	Σιμύρα	ξζ	κγ	λδ	γ
Γάβαλα	ξη	γ	λδ	κιβ	Ορθωσιά	ξζ	ς	λδ	γ
Πάλτος	ξη	γ	λδ	κδ	Τρίπολις	ξζ	κ	λδ	γ
Βαλανᾶαι	ξη	γ	λδ	κιβ	Θεοῦ πρόσωπον				
ΦΟΙΝΙΚΗΣ ΘΕΣΙΣ.					ἄκρον	ξζ	γ	λδ	γ
Ελεύθερος ποτ.									
ἐκβολαὶ	ξη		λδ	γιβ					

Ptol. Geogr. l. v. cap. 15. Ed. *Bert.*

banks

banks of this river, the ruins of a conſiderable city, whoſe adjacent diſtrict pays yearly to the *Baſhaws* of *Tripoly*, a tax of fifty dollars by the name of *Or-toſa*. In *Peutinger's* table, alſo, *Orthoſia* is placed thirty miles to the ſouth of *Antaradus*, and twelve miles to the north of *Tripoly*. The ſituation of it likewiſe is further illuſtrated, by a medal of *Antoninus Pius*, ſtruck at *Orthoſia*; upon the reverſe of which, we have the goddeſs *Aſtarte* treading upon a river. For this city was built upon a riſing ground, on the northern banks of the river [8], within half a furlong of the ſea; and as the rugged eminences of *mount Libanus* lye at a ſmall diſtance, in a parallel with the ſhore, *Orthoſia* muſt have been a place of the greateſt importance, as it would have hereby the entire command of the road, (the only one there is,) betwixt *Phœnice* and the maritime parts of *Syria*.

The *Eleutherus* frequented by tortoiſes.

There is a remarkable circumſtance in the natural hiſtory of the river *Eleutherus*, which may be a further proof of what I am contending for, *viz.* that the *Nahar el Berd* and the *Eleutherus* are the ſame river. For *Pliny* tells us [9], that *at a certain ſeaſon of the year, the Eleutherus is ſo full of tortoiſes, that they were eaſily taken.* It is therefore probable, that, at the ſeaſon here pointed at, there muſt be ſome particular quality in the water of the *Eleutherus*, which engages them to frequent *it*, more than any other of the neighbouring rivers. If the *ſpring* then ſhould be the ſeaſon, here recorded, (and in the middle of *April*, I found theſe animals had left the ſea, and were retired within the banks of the *Kiſhon*;) it is at this time, that the ſnow begins to melt upon mount *Libanus*. And as both the ſources, and the whole courſe of the *cold ſtream* are from that mountain, the water of it muſt be much colder, and more impregnated with nitrous ſalts, at this ſeaſon than at another. If theſe qualities then, ſhould be agreeable to the *tortoiſe*, (for whether it were to copulate, or otherwiſe to refreſh themſelves, any other of the adjacent rivers would have equally ſerved the purpoſe) the *cold river* would certainly have the preference; inaſmuch as none of the others have the ſame relation to *mount Libanus*; from whence alone theſe qualities could be derived.

The river Eleutherus, *the boundary of* Syria *and* Phœnice.

The mountains of *Libanus*, which, from *Arca* to the mouth of this river, lie in a W. S. W. direction, begin now to run parallel with the ſea coaſt, at about a mile's diſtance; or elſe they ſtretch themſelves out, in ſmall promontories, into the ſea. As there is hereby made a remarkable alteration in the face and diſpoſition of the whole country, we have great reaſon to imagine, eſpecially if proper regard is paid to the foregoing geographical circumſtances, that the boundary was here

[8] *Strab. Geogr.* l. xvi. p. 1093. [9] L. ix. c. 10.

fixed

fixed betwixt *Syria* and *Phœnice*. *Mela* [1] indeed places *Simyra* and *Marathus* among the cities of *Phœnice*; whilſt *Stephanus*, by making *Balanea*, now *Bannias*, to be likewiſe a city of the ſame, extends this province into the very neighbourhood of *Jebilee*; which is contradictory to all geography. Even *Pliny*, notwithſtanding he calls *Simyra* a city of *Cœle-Syria*; yet, by placing *Marathus* and *Aradus*, which are ſituated ſeveral leagues beyond it, to the N. in *Phœnice*, he is by no means conſiſtent with himſelf. However, *Ptolemy's* authority is intirely in our favour; which is the more to be credited, as an old extract from *Strabo* [2], and even *Strabo* himſelf ſeems to confirm it. For when the latter calls *Marathus* πόλις ἀρχαία Φοινίκων, *an ancient city of the Phœnicians*, nothing more perhaps is meant, than that it originally belonged to the *Phœnicians*, before they were excluded by the *Seleucidæ*, and ſo became a part of *Syria*. And if this interpretation is admitted, then we may likewiſe account for the difficulties juſt now related, from *Mela*, *Stephanus* and *Pliny*; viz. that *Phœnice* might originally reach to the northward of the river *Eleutherus*; which was afterwards the fixed boundary betwixt it and *Syria*.

The antient TRIPOLIS. About two leagues from the *Nahar el Berd*, are the ruins of *Tripolis*; which, being founded, by the united intereſt of *Aradus*, *Sidon*, and *Tyre* [3], might have been intended for a common *mart* to thoſe three maritime powers. It is ſituated upon a low *cape*, called a *peninſula* by *Scylax* [4], and has formerly enjoyed a large and ſafe harbour; though at preſent a few iſlands, lying to the N. W. are the only ſhelter for veſſels. There are no traces here, as far as I could obſerve, of any other walls, than ſuch as may be ſuppoſed to belong to one and the ſame city; which I take notice of, becauſe ſome antient geographers [5] have obſerved, that *Tripoly* was not one, but three cities, built at a furlong's diſtance from each other.

The preſent Tripoly. That, which is now known by the name of *Tripoly*, is at half a leagues diſtance from the old, upon the declivity of a hill, that faces the ſea. It enjoys a conſiderable trade, ariſing as well from its own manufacturies in ſilk and cotton, as from thoſe that are brought from *Aleppo* and *Damaſcus*. I could obſerve nothing in the city walls or caſtle, that could give either of them a title to a *Greek* or *Roman* foundation; the appearance of both, being altogether modern and *gothic*, not much earlier perhaps, than the times of the *Croiſades*. The greateſt curioſity, is an aqueduct, with its *reſervoirs*, ſome of which,

[1] *P. Mel.* l. i. cap. 4. [2] *Chryſ.* ex *Strab. Geogr.* l. xvi. p. 208.
[3] *Diod. Sic.* l. xvi. cap. 41. *Scyl. Perip. Ed. Hudſ.* p. 41. *Strab.* l. xvi. p. 519. *Plin.* l. v. cap. 20. [4] *Scyl. Perip.* ut ſupra.
[5] Vid. *Diod.* ut ſupra. *Pomp. Mela*, l. i. cap. 12.

are

are twenty or thirty foot high; and, by being placed at proper diſtances in the town, very conveniently ſupply the houſes, to their ſecond and third ſtories, with water. Over the *prince's bridge*, which is the chief arch of the aqueduct, there is an *eſcutcheon* charged with what appears to be a *croſs-croſslet*: which, being the *bearing* of the family of *Lorrain*, may vouch for the tradition, that it was built by *Godfrey of Bulloign*. At *Bellmont*, upon an eminence two leagues S. from *Tripoly*, there is a famous convent of *Greek kalories* founded by the *Croiſades*. We ſee, upon the ſouthermoſt declivity of it, a large heap of ruins, which might belong to the antient *Trieris*; and betwixt theſe and *Tripoly*, is the ſmall village *Kalemony*, the *Calamos* of *Pliny*. TRIERIS. CALAMOS.

I am not acquainted with that part of *Phœnice*, which lies between *Cape Greego*, (the Θεὸς πρόσωπον of *Ptolemy*,) and *Tyre*. At *Tyre* I viſited ſeveral of its creeks, in order to diſcover what conveniencies there might have been formerly for the ſecurity of their navy. Yet, notwithſtanding it was the chief maritime power of this country, I did not obſerve here, the leaſt token, either of a *cothon*, or of a harbour, of any extraordinary capacity. The coaſting ſhips, indeed, ſtill find tolerable good ſhelter from the northern winds, under the ſouthern ſhore; but are obliged immediately to retire, when the wind changes to the W. or S: ſo that there muſt have been ſome better ſtation than this for their ſecurity and reception. In the N. N. E. portion indeed of the city, we ſee the traces of a ſafe and commodious baſon, that lies within the very walls; but this is ſcarce forty yards in diameter: neither could it ever have enjoyed a larger *area*, unleſs the buildings, which now circumſcribe it, were encroachments upon its original dimenſions. Yet even this port, ſmall as it is at preſent, is choaked up to that degree, with ſand and rubbiſh, that the boats of thoſe poor fiſhermen, who now and then viſit this once renowned *emporium*, and *dry their nets upon its rocks and ruins*, (*Ezek.* xxvi. 4, 5.) can, with great difficulty only, be admitted. *The port of* Tyre.

All the nations of the *Levant* call *Tyre* by its antient name צור, or *Sur*, from whence the *Latins* borrowed their *Sarra*[6]. *Sur* lays claim to a double etymology, each of them very natural; though the rocky ſituation, the צור of the *Phœnicians*, will prevail, I am perſuaded, with every perſon, who ſees this *peninſula*, beyond the *Sar* [7] or *purple-fiſh*, Tyre *called at preſent* Sur.

[6] *Sarræ* nomen deduci notum eſt ex Hebræo Tyri nomine צור *Tſor*; in quo literam *Tſade*, quæ medii eſt ſoni inter T & S *Græci*, in T mutarunt: & Romani in S. Ita factum ut ex eodem צור *Tſor* & Τύρος naſceretur & *Sarra*. *Boch.* l. ii. *Chan.* cap. 10.

[7] Quæ nunc *Tyrus* dicitur, olim *Sarra* vocabatur, a piſce quodam qui illic abundat, quem lingua ſua *Sar* appellant. *Vet. Scholiaſt.* in iv. *Georg. Virg.*

for which it might have been afterwards in ſo much eſteem. The *purple fiſh* (the method at leaſt of extracting the tincture [8], has been wanting for many ages: however, amongſt a variety of other ſhells, the *purpura* of *Rondeletius* is very common upon the ſea-ſhore. Several of the *exuviæ*, which I ſaw, had their inſides beautified with purpliſh ſtreaks; a circumſtance which may inſtruct us, that the inhabitants were pregnant with juices productive of ſuch tinctures [9].

The ſources of the Kiſhon. There is nothing remarkable betwixt this place and *mount Carmel*, but what has been taken notice of by Mr. *Maundrell*. In travelling under the S. E. brow of that mountain, I had an opportunity of ſeeing the ſources of the *river Kiſhon*. Three or four of which lye within leſs than a furlong of each other, and are called *Ras el Kiſhon*, or *the head of Kiſhon*. Theſe alone, without the leſſer contributions nearer the ſea, diſcharge water enough to form a river half as big as the *Iſis*. During likewiſe the rainy ſeaſon, all the water, which falls on the eaſtern ſide of the mountain, or upon the riſing ground to the ſouthward, empties itſelf into it in a number of torrents, at which conjunctures it overflows its banks, acquires a wonderful rapidity, and carries all before it. And it might be at ſuch a conjuncture as this, when *the ſtars* (*Judg.* v. 21.) are ſaid *to fight againſt Siſera*, viz. by bringing an abundance of rain, whereby the *Kiſhon* was ſo occaſionally high and rapid, as *to ſweep away the hoſt of Siſera*, in attempting to ford it. But theſe inundations are extemporaneous only, without any duration; for the courſe of the *Kiſhon*, which is only about ſeven miles in length, runs very briſkly, 'till within half a league of the ſea. When the *Kiſhon* therefore is not augmented by theſe accidental torrents, it never falls into the ſea in a full ſtream, but inſenſibly percolates through a bank of ſand, which the north winds throw up againſt the mouth of it. In this manner I found it, in the middle of *April*, (1722) when I paſſed it. Mr. *Sandys* and others have been miſtaken, in making the *Kiſhon* flow from the mountains of *Tabor* and *Hermon*; with which it has no communication.

The river BELUS *or* Kardanah. Beyond the ſources of the *Kiſhon* to the S. E. and along the banks of it to the N. E. there are ſeveral hillocks, which ſeparate the valley, through which it runs, from the plains of *Acre* and *Eſdraelon*. The river *Belus*, now called the *Kar-danah*, has its ſources about IV M. to the eaſtward of the *Ras el Kiſhon*, on the other ſide of theſe hillocks,

[8] *Vitruvius de Architect.* l. vii. cap. 13. gives us the method of extracting the purple. *Vid. Libav.* vol. ii. *Alchem.* par. i. p. 160. *Wiſonii Theatr. variarum rerum*, p. 1. lib. i. *Card. de ſubtilit.* l. iv. p. 240. *Tab. Column. de purpura*, § 37.

[9] Nunc omnis ejus nobilitas conchylio atque purpura conſtat. l. v. cap. 19.

where there are ſeveral ponds; the largeſt whereof, may be the *Cendevia*[1] of *Pliny*, who derives the river *Belus* from it. And as this river waters the plains of *Acre* and *Eſdraelon*, ſuch brooks as ariſe from *mount Tabor*, as well as others, (if there be any in this neighbourhood) may poſſibly communicate with it; whereas the *Kiſhon* cannot, for the reaſons already given. Neither indeed does the *Kiſhon* run in the direction, that has been hitherto aſſigned to it by geographers; its true courſe lying from S. to N. after which it falls into the gulph of *Kaifah*.

The remarkable ponds abovementioned, from their near ſituation to the *Kiſhon* and *Jezreel*, may be well taken for *the waters of Megiddo*; as *Megiddo* itſelf, together with *Taanach*, in the neighbourhood of it, might have been built near, or upon their banks. And in this ſituation was *Siſera* diſcomfited by *Deborah* and *Barak*, *Judg.* v. 19. *Joſ.* xvii. 11. 1 *Kings* iv. 12.

Leaving *mount Carmel* to the N. W. we paſs over the S. W. corner of the plain of *Eſdraelon*, the lot formerly of the tribe of *Iſſachar*. This is the moſt fertil portion of the land of *Canaan*, where that tribe might well be ſuppoſed to have *rejoiced in their tents*, *Deut.* xxxiii. 18. To the eaſtward our proſpect is bounded, at about fifteen miles diſtance, by the mountains of *Nazareth*, and *Hermon*; with the pointed *mount Tabor*, ſtanding *apart* before them. Advancing farther into the *half tribe* of *Manaſſeh*, we have ſtill a fine arable country, though not ſo level as the former; where the landſkip is every hour changed and diverſified by groves of trees, or by the ruins, which are very numerous, of antient villages. In deviating here from the beaten path, (which we generally did to avoid the *Arabs*) we were ſometimes obſtructed, or at leaſt had difficulty enough to force our way through this rich champain; which, through neglect and want of culture, was ſo thickly planted with the more luxuriantly-growing plants, ſuch as teaſels, mullein, charlock (*Mar.* iv. 31.) thiſtles, and the like, that we had much ado to defend our faces from being every moment offended by them. The country begins to be rugged and uneven at *Samaria*, the N. boundary of the *tribe* of *Ephraim*; from whence, through *Sichem*, all the way to *Jeruſalem*, we have nothing elſe but mountains, narrow *defilees*, and valleys of different extents. Of the mountains, thoſe of *Ephraim*, the continuation of *Gerizim* and *Ebal*, are the largeſt; the moſt of them being ſhaded with *foreſt trees*; whilſt the valleys below, particularly *the plains of Moreh*, *Gen.* xii. 6.

The tribe of Iſſachar.

[1] Rivus *Pagida* ſive *Belus*, vitri fertiles arenas parvo litori miſcens. Ipſe e palude *Cendevia* a radicibus *Carmeli* profluit. *Plin.* l. v. cap. 19.

Deut. xi. 30. where *Gideon* put to flight the princes of *Midian*, *Judg.* vii. 1. are long and ſpacious, not inferior in fertility to the beſt part of the *tribe of Iſſachar*. The mountains of the *tribe of Benjamin*, which lie ſtill further to the ſouthward, are generally more naked than thoſe of *Ephraim*; having their ranges much ſhorter, and conſequently their valleys more frequent: in one of which, VI. M. to the eaſtward of *Jeruſalem*, is the village *Jeremiah*, formerly *Anathoth*, with the ruins of a convent, and a ſmall brook running by it. The *tribe of Judah* were poſſeſſed of a country, much like that of *Benjamin* or *Ephraim*; though the mountain of *Adummim* [2] and *Quarantania*, thoſe of *Engaddi*, and others that border upon the plains of *Jericho* and the *Dead ſea*, are as high, and of as great extent as thoſe of the two other tribes, though much more barren, and with fewer trees growing upon them. Some of the valleys likewiſe, that belong to *Judah*, ſuch as *Rephaim*, *Eſhcol*, and others, merit an equal regard with the plains of *Moreh*, or *that parcel of ground which Jacob gave to his ſon Joſeph*, (*Gen.* xlviii. 22.) But the weſtern diſtrict of the *tribe of Ephraim*, at *Ramah* and *Lydda*, is nearly of the ſame arable and fertil nature, with that of the half *tribe* of *Manaſſeh*; as it is likewiſe equally plain and level. The latter of theſe circumſtances agrees alſo with the *tribe of Dan*, though their country is not ſo fruitful, having, in moſt parts of it, a leſs depth of ſoil, and borders upon the ſea coaſt at *Joppa*, and a great way on each ſide of it, in a range of mountains and precipices. And it is, for the moſt part, in theſe high ſituations, that we meet with the *dens*, the *holes*, or *caves* ſo frequently mentioned in Scripture; formerly the loneſome retreats of the diſtreſſed *Iſraelites*, *Judg.* vi. 2. 1 *Sam.* xiii. 6. and perſecuted prophets, 1 *Kings* xviii. 4. *Heb.* xi. 38. *Strabo* tells us, (l. xvi. p. 760.) that the port of *Joppa and Jeruſalem* ἔϛιν ἐν ὄψει were in ſight of another: but the many high intervening mountains will admit of no ſuch proſpect. From the mountain of *Quarantania*, (the very ſame perhaps, where the two ſpies concealed themſelves, *Joſh.* ii. 16.) we have a diſtinct view of the land of the *Amorites*, *of Gilead*, *and of Baſan*, the inheritance [3] of the *tribes* of *Reuben* and *Gad*, and of the *half tribe* of *Manaſſeh*. This tract, in the neighbourhood particularly of the river *Jordan*, is, in many places, low, and, (for want of culture) ſhaded and overgrown with tamariſks and willows:

The tribe of Benjamin.

The tribe of Judah.

The tribe of Dan.

The tribes of Reuben, *&c.*

[2] This joins to the mountain of *Quarantania*; and through it the road is cut that leads from *Jeruſalem* to *Jericho*: a difficult paſs, *the mountain of blood*, or the *bloody road*, as the name may import; where probably it was, from the very nature of the ſituation, that *the man fell among thieves*, &c. *Luke* x. 30. [3] *Deut.* chap. iii.

but

To face p. 277.

A. The present Walls of Jerusalem.
B.C. Those of the Antient City; before Mount Sion or y.e City of David D was excluded: or Mount Calvary E was received within the City.
F. The Fullers Field.
G. The Potters Field.
H. Mount Moria.
I. The Valley of Jehoshaphat.
K. The Brook Cedron.
L. The Garden of Gethsemane.
M. The Mount of Olives, with the Church of the Ascension, on the Top of it.
a. The Gate of Jaffah & Bethlehem
b. Of Damascus.
c. of Ephraim or Herod.
d. of S.t Stephen.
e. The Golden Gate of the Temple.
f. The Dung Gate.
g. The Gate of Sion.
h. The Castle of the Pisans.
i. The Place of the Cœnaculum.
k. Bathsheba's Pool.
l. The Iron Gate of the Antient City.
m. The Church of the Holy Sepulchre.
n. The Convent of the Franciscans
o. Where Herod's Palace is Supposed to have stood.
p. The Sepulchres of y.e Kings.
q. The Grotto of S.t Jeremiah.
r. The Fountain & Pool of Siloam. s. The Fountain of the Holy Virgin.
t. Aheldama.
u. The Pool of Bethesda.
w. Where S.t Stephen was Stoned
x. y. z. The Sepulchres of Zacharias, Absalom, & Jehoshaphat.
α The Sepulchre of the Holy Virgin.
β The Village of Siloe, where Solomon kept his strange Wives.
γ The Road to Bethphage.
δ The Area of the Temple.
ε The Place of y.e Sanct. Sanctorum Where there is now a Mosque.
J The Beautiful Gate of the Temple.
n The Church of the Presentation.

Vid. Fig. apud Luallart, Bernardini, Doubden.

but at the diſtance of two or three leagues from the ſtream, it appears to be made up of a ſucceſſion of hills and valleys, ſomewhat larger, and ſeemingly more fertil than thoſe in the *tribe of Benjamin*. Beyond theſe plains, over againſt *Jericho*, where we are to look for the mountains of *Abarim* [4], the northern boundary of the *land of Moab*, our proſpect is interrupted by an exceeding high ridge of deſolate mountains, no otherwiſe diverſified, than by a ſucceſſion of naked rocks and precipices; rendered, in ſeveral places, more frightful, by a multiplicity of torrents, which fall on each ſide of them. This ridge is continued all along the eaſtern coaſt of the *Dead ſea*, as far as our eye can conduct us; affording us all the way, a moſt loneſome, melancholy proſpect, not a little aſſiſted by the intermediate view of a large ſtagnating, unactive expanſe of water, rarely if ever enlivened by any flocks of water-fowl that ſettle upon it, or by ſo much as one veſſel of paſſage or commerce, that is known to frequent it. Such is the general plan of that part of the *holy land*, which fell under my obſervation.

The hills, which *ſtand round about Jeruſalem*, ſituate it, as it were, in an amphitheatre, whoſe *arena* inclines to the eaſtward. We have no where, any diſtant view of it. That from the *Mount of olives*, the beſt and perhaps the fartheſt, is notwithſtanding at ſo ſmall a diſtance, that, when our *Saviour* was *there*, he might be ſaid, almoſt in a literal ſenſe, *to have wept over it*. There are very few remains of the city, either as it was in our *Saviour's* time, or as it was afterwards rebuilt by *Hadrian*; *ſcarce one ſtone being left upon another, which hath not been thrown down*. Even the very ſituation is altered. For *mount Sion*, the moſt eminent part of the *old Jeruſalem*, is now excluded, and its ditches filled up; whilſt the places adjoining to *mount Calvary*, where *Chriſt* is ſaid to have *ſuffered without the gate*, are now almoſt in the centre of the city. *The ſituation of* Jeruſalem.

Yet notwithſtanding theſe changes and revolutions, it is highly probable, that a faithful tradition has always been preſerved of the ſeveral places that were conſecrated, as we may ſay by ſome remarkable tranſaction, relating to our *Saviour*, or to his Apoſtles. For it cannot be doubted, but that, among others, *mount Calvary* and the *cave* where our *Saviour* was buried, were well known to his diſciples and followers: and not only ſo, but that ſome marks likewiſe, of reverence and devotion were always paid to them. Theſe, no leſs than the *grotto* at *Bethlehem*, the ſuppoſed place of our *Saviour's* nati- *A tradition kept up of the remarkable places.*

[4] *Nebo* and *Piſgah* were ſome particular parts or ſummits of this mountain, from whence *Moſes beheld the land of Canaan, before he was gathered to his people. Numb.* xxvii. 12, 13. and xxxii. 47. *Deut.* iii. 27. and xxxii. 49. and xxxiv. 1.

vity,

vity, were ſo well known in the time of *Hadrian* [5], that out of hatred and contempt to the *Chriſtian name*, a ſtatue was erected to *Jupiter*, over the place of the *holy ſepulchre*; another to *Venus* upon *mount Calvary*; and a third to *Adonis* at *Bethlehem*. All theſe continued, 'till *Conſtantine* and his mother St. *Helena*, out of their great eſteem and veneration for places ſo irreligiouſly prophaned, erected over them thoſe magnificent temples, which ſubſiſt to this day. An uninterrupted ſucceſſion, it may be preſumed, of *Chriſtians*, who conſtantly reſided at *Jeruſalem*, or who, as St. *Jerom* informs us, occaſionally reſorted thither [6], out of devotion, would preſerve, not only the names of the particular places which I have mentioned, but of the *pools* of *Bethesda* and *Siloam*: of the *garden of Gethſemane*; of the *field of blood*; and of a great many others that are taken notice of in the hiſtory of our *Saviour*. But as all theſe have been well deſcribed by *Sandys* and *Maundrell*, they need not be here repeated.

The many and ſo much celebrated *pilgrimages* to the *holy land*, or *ſancta terra*, (from whence perhaps our word *ſant'ring*, or *idling about*, might proceed) ſeem to have commenced upon the building of the temples abovementioned; eſpecially after *the finding of the croſs* [7], as it was given out, and the many miracles conſequent thereupon.

The great extent of the tribe of Judah.

The lot of the *tribe* of *Judah* was nearly equal in extent, to that of all the other tribes; and *being too much for them*, the *tribe* of *Simeon* had their inheritance taken out of it [8]. It's ſouthern boundary [9] was to be from the bottom of the *ſalt ſea*, ſouthward, all along by the border or coaſt of *Edom*, (*Num.* xxxiv. 3. *Joſh.* xv. 1.) to the river of *Egypt*, and from thence, to the *Mediterranean* ſea.

Now as it will appear, from the following diſſertation, that the *river* of *Egypt* could be no other than the *Nile*, particularly that branch of it which lay contiguous with *Arabia*, as likewiſe the extent and

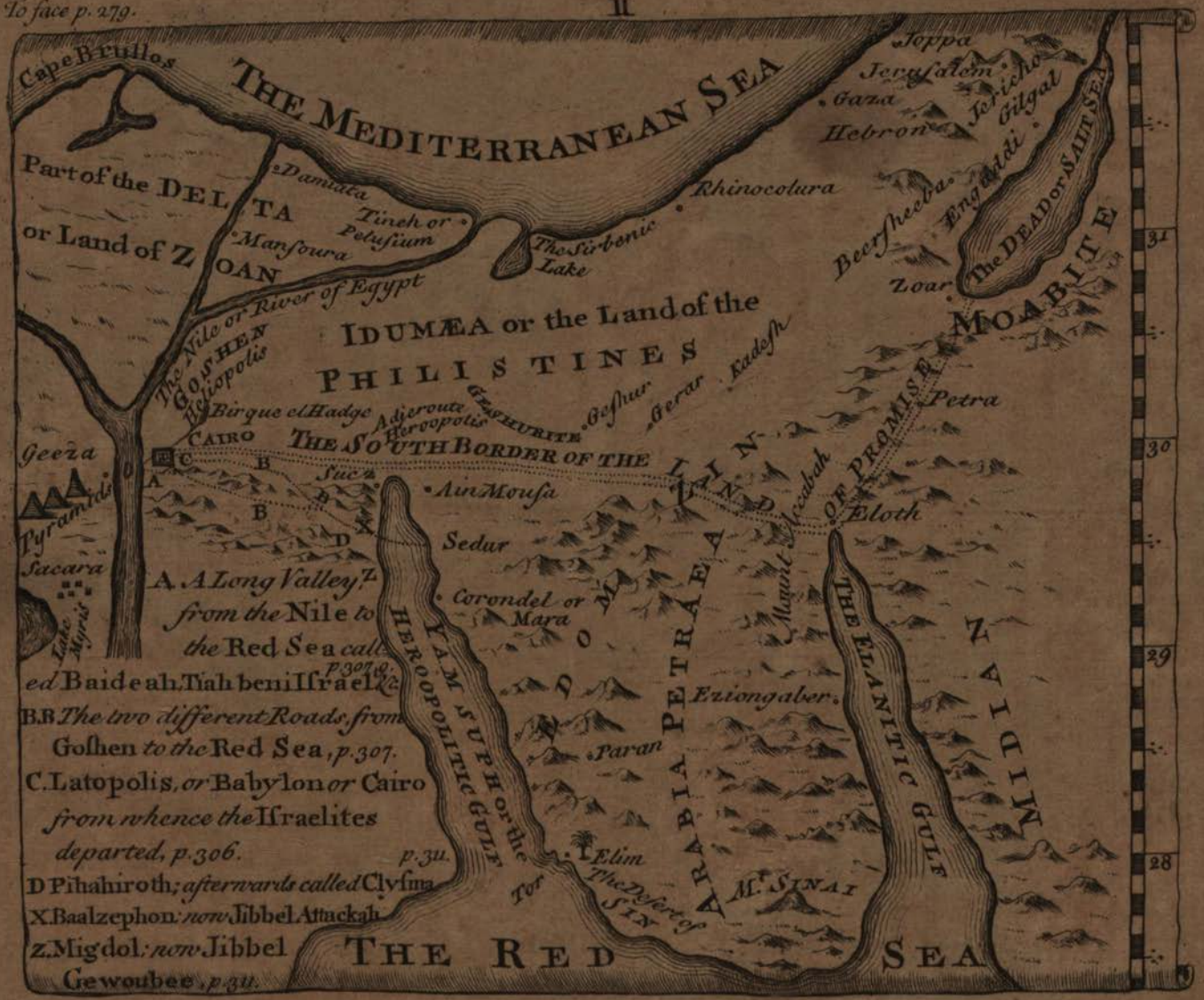
[5] Ab *Hadriani* temporibus uſque ad imperium *Conſtantini*, per annos circiter centum octoginta, in loco reſurrectionis ſimulacrum Jovis, in crucis rupe ſtatua ex marmore Veneris a gentibus poſita colebatur, exiſtimantibus perſecutionis auctoribus, quod tollerent nobis fidem reſurrectionis & crucis, ſi loca ſancta per idola polluiſſent. *Bethlehem* nunc noſtrum & auguſtiſſimum orbis locum, de quo Pſalmiſta canit, Veritas de terra orta eſt, lucus inumbrabat *Thamuz*, i. e. *Adonidis*; & in ſpecu, ubi quondam Chriſtus parvulus vagiit, *Veneris* Amaſius plangebatur. *Hieron. Ep.* xiii. *ad Paulin.* *Euſeb. de Vita Conſtant.* l. iii. cap. 25.

[6] Longum eſt nunc ab aſcenſu Domini uſque ad præſentem diem per ſingulas ætates currere, qui Epiſcoporum, qui Martyrum, qui eloquentium in doctrina Eccleſiaſtica virorum venerint Hieroſolymam, putantes ſe minus religionis, minus habere ſcientiæ, niſi in illis Chriſtum adoraſſent locis, de quibus primum Evangelium de patibulo coruſcaverat. *Hieron. Ep.* xvii. *ad Marcell.*

[7] Vide *Weſſelingii Diſſert. de Peregr. Hieroſol.*

[8] *Joſh.* xix. 9. [9] *Numb.* xxxiv. 3, 4, 5. *Joſh.* xv. 1, 2, 3, 4.

ſituation



A. A Long Valley from the Nile to the Red Sea called Baideah Tiah beni Israel p. 307. &c.

B.B. The two different Roads from Goshen to the Red Sea, p. 307.

C. Latopolis, or Babylon or Cairo from whence the Israelites departed, p. 306.

D Pihahiroth; afterwards called Clysma

X. Baalzephon: now Jibbel Attackah

Z. Migdol: now Jibbel Gewoubee, p. 311.

p. 311.

ſituation of the *ſalt ſea*, (otherwiſe called the *lake of Sodom*, the *Aſphaltic lake*, the *Sea of the plain*, and *the Dead ſea*;) may be proved from ſeveral geographical circumſtances, to run parallel with the *Mediterranean ſea*, and to ſtretch itſelf towards the gulph of *Eloth*, at about LXXV M. diſtance, and nearly in a S. S. W. direction; we have, ſo far, two conſiderable points given us, towards the fixing of this *border of Edom*, which was to be the boundary of the *land of Promiſe*, to the ſouth. It was firſt of all *to be* (or to commence) *from the bay of the ſalt ſea, that looketh ſouthward*, *Joſh.* xv. 2. and *it went out* from thence *to the ſouth ſide of Maaleh Accrabbim*; i. e. (as in the margin) *to the aſcent of Accrabbim*; which might be the very road, where theſe mountains are uſually paſſed over. *Accrabbim* then, may probably be the ſame with the mountains of *Accaba*, according to the preſent name, which hang over *Eloth*; where there is a high ſteep road, well known to the *Mahometan* pilgrims, for its ruggedneſs. And that this part of the boundary might reach ſo far to the ſouthward, may be inferred, not only from St. *Jerom*, who (*in locis Hebr.*) makes *Eloth* to be a part of the *holy land*, but from *Ex.* xxiii. 31. where the *Red ſea*, including, as we may ſuppoſe, both the *Elanitic* and *Heroopolitic* gulfs of it, is ſaid to be *the* ſouthern *bounds of it*. This ſeems alſo to be further confirmed by what follows in the context; where from *Maaley Accrabbim*, this boundary *was to paſs along to Zin*, or the deſert of that name, which muſt therefore reach as far as *Maaley Accrabbim* and *Eloth*. From hence *it was to aſcend up, on the ſouth ſide, unto Kadeſh barnea*: which, from the circumſtance *of aſcending up to it*, muſt lie nearer *the land of Promiſe*, than *Maaley Accrabbim*, *Eloth* or *the Red ſea*; as from *the aſcending up to it on the ſouth ſide*, ſhould imply, that it even lay without, or on the north ſide of the boundary.

The border of Edom, *and the ſouth border.*

From *Kadeſh Barnea*, this boundary *was to paſs along to Hezron*, *and to go up to Adar*, *and fetch a compaſs*, (the direct way perhaps, along this diſtrict being interrupted by mountains;) to *Karkaa*; *from thence*, ver. 4. *it paſſed towards Azimon*, *and went out into the river of Egypt*. But of theſe intermediate places, unleſs *Azimon* ſhould be the ſame place that was afterwards called *Heroopolis*, we can give no account. However, it may be obſerved, upon the whole, that as this boundary, in its way to the *river of Egypt*, was to touch at the *Heroopolitic* gulf of *the Red ſea*, (*mount Seir*, *Joſh.* xii. 7. being left all the way on the left hand) an imaginary line, drawn from *the northermoſt ſhore of the Red ſea to Eloth*, and from thence to *Kadeſh Barnea*, and ſo forward, in the ſame parallel, by *Adjeroute* or *Heroopolis*, to *the river of Egypt*, near *Kairo*, or the *land of Goſhen*, will be the boundary required. But further notice will be taken of this ſubject, in the courſe of our geographical inquiries.

Kadeſh Barnea.

As

As their *eaſt border was to be the ſalt ſea*, (*Joſh.* xv. 5.) *even unto the end of* JORDAN, or its influx into it; ſo the *weſt border* (ver. xii.) *was to be the Great ſea*, (or the *Mediterranean*,) *and the coaſts thereof*; from *Ekron* to the *river of Egypt*: the moſt part of which is low, of a barren ſandy quality, and very dangerous for veſſels to approach. Several of the antient cities, particularly thoſe of the *Philiſtines*, have preſerved their old names; for *Ekron* is called *Akron*; *Aſcalon* is contracted into *Scalon*; *Gath* into *Jet*; and *Gaza*, (which lies about ſeven leagues to the S. W. of *Akron* and eleven in the ſame direction, from *Jaffa*) is pronounced *Gazy*. *Rhinocorura* was ſituated near the bottom of the gulph, ſixteen leagues to the S.W. *by* W. of *Gazy*, and eighteen to the eaſtward of the *Nile*. The lake *Sirbonis*, the boundary, as it is made by ſome of the old geographers [1], betwixt *Egypt* and *Phœnicia*, lay betwixt *Rhinocorura* and the *Nile*, at ſix leagues diſtance from the latter, which was formerly of great extent, and had a communication with the ſea. Though indeed, what I have ſaid of *Kadeſh Barnea*, *Rhinocorura*, and this lake, is barely conjectural, by comparing, what I myſelf have ſeen of *Judea*, the *Nile*, *Arabia*, and its two gulfs, with the accounts that are given us of them, by different authors.

The weſtern border was along the coaſt of the Mediterranean, *or* great ſea.

If then we take in the whole extent of the *land of Promiſe*, from *Hamath* to the *river of Egypt*; and from the coaſt of *the Great* or *Mediterranean ſea*, to the eaſtermoſt poſſeſſions of the *Reubenites*, which reached to the *deſerts of Arabia*, or (as it is recorded, 1 *Chr.* v. 9.) *to the very entrance into the wilderneſs from* (i. e. on this ſide) the *river Euphrates*; (which countries, at one time or another, were in the poſſeſſion of the *Iſraelites*) it will contain CCCCLX M. in length: and by bounding it no further to the eaſtward, as we will ſuppoſe, than with the meridians of *Hamath* and *Damaſcus*, it will contain near one hundred miles in breadth. The extent of it indeed, *from Dan to Beerſheba*, which is often mentioned in Scripture, as the more ſettled and permanent poſſeſſion of the *Iſraelites*, does not exceed CXX M. yet, even reduced to this length only, conſidering the great fruitfulneſs of the whole, the number of its inhabitants, together with the many cities and villages that belonged to it: the *Holy land* was ſo far from being *an inconſiderable ſpot of ground*, as ſome authors have miſrepreſented it, that (excluſive of what it was in the reigns of *David and Solomon*, *Ezra* iv. 20. and many ages after,) muſt have been always regarded as one of the moſt opulent and conſiderable kingdoms of the eaſt; and that the *Iſraelites*, according to the acknowledgment of the king of *Tyre*, 1 *Kings* v. 7. were *a great people*.

The whole extent of the land of Canaan.

[1] Ab urbe *Orthoſia* Peluſium uſque regio maritima *Phœnicia* dicitur, anguſta exiſtens. *Chryſ.* ex *Strab. Geogr.* l. xvi. p. 208.

CHAP.

CHAP. II.

An inquiry whether the Nile, *or a ſuppoſed torrent at* Rhinocorura, *was the* Nahal Mitzraim, *or river of* Egypt.

IT has been a point long controverted among the learned, whether the *Nile*, or a ſuppoſed rivulet at *Rhinocorura*, was the *weſtern boundary* of the *Holy land*. In order therefore to ſettle this diſpute, which is of no ſmall conſequence in the *ſacred geography*, it may be obſerved in the firſt place [1], that it does not appear, from the antient geography, either ſacred or profane, that *Rhinocolura*, or any city of note in that ſituation, was known, 'till many ages after the time of *Joſhua*. Neither do we learn from *Strabo*, *Mela*, *Ptolemy*, *Pliny*, or any of the other old geographers, or hiſtorians who have deſcribed theſe parts, that any river or torrent, even after *Rhinocorura* was built, did there empty itſelf into the ſea: *Eratoſthenes* indeed, as he is quoted by *Strabo*, *ſuppoſes the lakes of* Arabia *(made by the overflowing of the* Euphrates*) to empty themſelves, by ſome ſubterraneous paſſages, into the rivers of* Rhinocorura *and mount* Caſſius. But *Strabo* [2] himſelf calls in queſtion the probability of this whole account. For when he comes to ſpeak expreſsly of theſe parts [3], by enumerating the ſeveral remarkable places, both upon the *Egyptian* and the *Syrian* ſide of *Rhinocorura*, he does not take the leaſt notice of a river; a circumſtance too material to have been omitted by ſo accurate a geographer as *Strabo*.

Rhinocolura was not known in the time of Joſhua.

Strabo *mentions no river at* Rhinocorura.

Several pilgrims likewiſe and travellers, in their way from *Egypt* to the *Holy land*, have travelled along this coaſt; ſome of whoſe journals and memoirs have been made publick; particularly thoſe of Mr. *Sandys*. Yet both theſe and others, as far as I can inform myſelf, are all ſilent in this particular; which is ſo far to be regarded in our favour, that, provided there had been a river in this dry and barren ſituation, it may well be preſumed, that the thirſty traveller would have recorded it with as much exactneſs, as he had taſted of it with pleaſure.

No river taken notice of by travellers.

[1] *Rhinocorura* or *Rhinocolura*, as it is differently written, was ſo called from (ῥὶν or ῥινὸς and κολοῦειν or κείρειν) the inhabitants having had their noſes cut off; as the ſtory is told by *Diodorus Siculus*, *Bibl.* l. i.

[2] Οὐκ οἶδα δ' εἰ πιθανῶς εἴρηκεν. lib. xvi. p. 510. Ed. *Caſaub.*

[3] *Idem*, p. 522.

Rhinocorura *built in a deſert, without water.*

Nay, ſo far was the whole neighbourhood of *Rhinocorura*, at the time of its foundation (and we can ſcarce admit of any alteration ſince) from affording the leaſt appearance of a running ſtream, or even of an occaſional torrent; that *Diodorus Siculus*, who has left us the beſt and the moſt circumſtantial account of it, tells us, that *it was ſituated in a barren country, deprived of all the neceſſaries of life: that, without the walls, there were ſeveral* ſalt-pits; *and that within, the wells yielded only a bitter corrupted water* [4]. *Herodotus* [5] confirms this account, by telling us, that *in thoſe deſerts, there was a dreadful want of water,* (χώριον ἄνυδρόν ἐστι δεινῶς) *to the diſtance of three days journey from* mount Caſſius *or the* Sirbonic lake. *Strabo* [6] likewiſe acquaints us, that *the whole country betwixt* Gaza *and the* Sirbonic lake, *was* (λυπρὰ καὶ ἀμμώδης,) *barren and ſandy.* It is likewiſe very probable, in ſo great a diſtreſs as this for water, that, had there been, during the rainy ſeaſon, any torrent or occaſional ſtream running by it, the inhabitants would rather have imitated their neighbours the *Egyptians*, in building themſelves ciſterns, for the reception of this annual ſupply of good water, than have been reduced to the neceſſity of digging themſelves wells, for the obtaining of bad. There appears then to be little reaſon, for fixing ſo remarkable a boundary, as that of the *Holy land*, in a wild open deſert; which had neither city, river, torrent, or, as far as we know, any remarkable land-mark to diſtinguiſh it.

The LXX *tranſlate the river of* Egypt, Ῥινοκόρουρα;

But it may be urged, perhaps, that the *Septuagint verſion* is contradictory to this account which inſtead of נחל מצרים *Nahal Mitzraim, the river of Egypt, If.* xxvii. 12. (as it is in, and as we render it *verbatim* from, the *Hebrew* text,) has Ῥινοκόρουρα, or *Rhinocorura*. Now as *Rhinocorura*, at the time of this verſion, was a place of great note and traffick, under the juriſdiction of the *Egyptian* kings; the tranſlators perhaps might fancy it to have been always under the like flouriſhing condition and dependance; and, as it was then, ſo they might conclude it to have been, in the time of *Joſhua*, a frontier city of *Egypt*; and as ſuch, to have conſtituted the boundary we are diſputing. Yet whether this, or ſome intended compliment to the *Ptolemies*, or what reaſon ſoever might induce the LXX to tranſlate *Nahal Mitzraim*, by *Rhinocorura*, in this text; the ſame, ſurely, had it been juſt and well grounded, ſhould have engaged them to have preſerved the like appellation in others. Whereas, inſtead of keeping up to one uniform tranſlation of *Nahal Mitzraim*, (one ſtrong argument why this verſion might have been made by different perſons, and at different

and alſo Φάραγξ, ποταμὸς, and Χείμαρρος Αἰγύπτου.

[4] *Diod. Bibl.* p. 55.
[5] *Herod. Thalia*, p. 184. Ed. *Steph.*
[6] *Strab.* p. 522.

times)

times) they ſometimes render it Φάραγξ Αἰγύπτου, the *gulph of Egypt*, *Joſh.* xv. 4. ſometimes Ποταμὸς Αἰγύπτου, the *river of Egypt*, 1 *Kin.* viii. 65. *Gen.* xv. 18. ſometimes Χείμαῤῥος Αἰγύπτου, the *torrent of Egypt*, 2 *Chron*, vii. 8. 2 *Kin.* xxiv. 7. *Numb.* xxxiv. 5. *Joſh.* xv. 47. and, in the text before us, Ρινοκόρυρος: herehy perplexing the very nature and quality, as well as the topography of this river, by attributing to it four different appellations.

The like diſagreement we may alſo obſerve in their tranſlation of שחור, שיחור or שיחור *Sihor* or *Shihor*, another name, as it will appear to be, of *the river of Egypt*. For 1 *Chr.* xiii. 5, where the original has it, *from Shihor of Egypt*; the LXX render it, ἀπὸ ὁρίων Αἰγύπτου, from *the borders of Egypt*. In *Jer.* ii. 18, for *the waters of Sihor*, they have *the water of* Γηῶν: *a river which encompaſſed the whole land of Chus*, a province of *Arabia*, *Gen.* ii. 13. In *Joſh.* xiii. 3, inſtead of *Sihor*, *which is before Egypt*; they have ἀπὸ τῆς ἀοικήτου τῆς καλὰ πρόσωπον Αἰγύπτου, *from the uninhabited land, that lyes before Egypt*. And in *Iſ.* xxiii. 3, for *the ſeed of Sihor*, they have σπέρμα μεταβόλων, the *ſeed of the merchants*; miſtaking a ס *Samech* for a ש *Shin*, or סחר for שחר. In geographical criticiſm, therefore, little ſtreſs can be laid upon the authority of the LXX *verſion*; where the phraſe ſo frequently varies from the original; and where ſo many different interpretations are put upon one and the ſame word.

The LXX. *give different interpretations of* שחור.

Neither will this opinion be much better ſupported by any authorities drawn from the writings of St. *Jerom*; becauſe what is there laid down, in favour of the LXX *verſion* in one place, is deſtroyed, or invalidated at leaſt, in another. *Pro torrente Ægypti*, (as it is obſerved, in his comment upon *Iſ.* xxvii. 13.) LXX *Rhinocoruram tranſtulerunt, quod eſt oppidum in Ægypti Palæſtinæque confinio: non tam verba S. Scripturæ, quam ſenſum verborum exprimentes.* And again, (tom. iii. ep. 129.) *Torrens Ægypti, qui juxta Rhinocoruram mari magno influit.* And again (in his comment upon *Amos* vi. 14.) *Ab Hamath uſque ad torrentem deſerti ſive occidentis*, (τῶν δυσμῶν) *ut LXX tranſtulerunt*, i. e. *ab Hamath ad* Rhinocoruram, *inter quam & Peluſium rivus Nili, ſive torrens, de eremo veniens mare ingreditur.* But here *Cellarius (Geogr. Antiq.* l. iii. c. 13.) rightly obſerves, that *rivus Nili, ſive torrens de eremo, Epanorthoſis eſt, & poſteriore adſerto, rejicitur prius.* For, if this torrent be a branch of the *Nile*, then it is the very thing that we are diſputing; but if it be a different river, yet ſtill, if it falls not in exactly at *Rhinocorura*; but ſomewhere or other *only*, (and there are fifty or ſixty miles) betwixt that city and *Peluſium*; nothing certain and determinate can be gathered from this quotation.

Rhinocorura, *in ſome places, received by St.* Jerom, *for the river of* Egypt.

St. Jerom makes Sihor *and the* Nile *to be the same.*

And indeed, how indefinite ſoever St. *Jerom's* meaning may be, in this place, yet, in others, by taking *Sihor* and the *Nile* for ſynonymous terms, he entirely invalidates the authority of all that he had ſaid before, in ſupport of the river, at *Rhinocorura*, being *the river of Egypt*. *Per Sihor* (ſays he, in his comment upon *Jer.* ii. 18.) *nos* aquam turbidam *interpretati ſumus, quod verbum Hebraicum ſignificat, nullique dubium quin Nilus aquas turbidas habeat; & quod fluvius Aſſyriorum Euphratem ſignificet; dicente Scriptura* (*Gen.* xv. 18.) *quod repromiſſionis terra ſit a torrente Ægypti* (i. e. *Nilo*[7]) *uſque ad fluvium magnum Euphratem.* And again, upon *Iſ.* xxiii. 3. *Ubi nos legimus* Semen negotiatorum, *in Hebræo ſcriptum eſt* Semen Sihor, *quod ſubauditur* Nili, *eo quod aquas turbidas habeat, quibus Ægypti ſegetes irrigantur.* Where we may obſerve, that beſides the proofs he has here given us, that *Sihor* and the *Nile* are the ſame, he contradicts the diſtinction that is made by him afterwards, betwixt the *torrent of Egypt*, and the *river Euphrates*; an obſervation, that ſhould by no means be diſregarded. *Et hoc notandum*, ſays he, *quod in Judææ terminis* (ad orientem *ſc.*) fluvius *appellatur*; *Ægypti finibus, ad occidentem*, torrens; *qui turbidas aquas habet, at non perpetuas.* For this definition of a *torrent*, will, by no means, agree with the *Nile*; which hath its water turbid indeed, yet *perpetually running*. And beſides, how different ſoever χείμαῤῥος and πόλαμος may be in their proper meanings and ſignifications, yet they both of them here denote the ſame thing; being, as has been already obſerved, indiſcriminately, though improperly uſed by the LXX inſtead of *Nahal*. Whereas *Nahal* ſhould always be interpreted *the river*; and when it is joined with *Mitzraim*, it ſhould be rendered *the river of Egypt*, and not *the torrent of Egypt*; which carries along with it a low and diminutive ſignification, highly derogatory to the dignity of the *Nile*, how expreſſive ſoever it may be, of the imaginary rivulet at *Rhinocorura*.

Nahal Mitzraim *improperly rendered* the torrent of Egypt.

A river at Rhinocorura *could, with no propriety, be called the river of* Egypt.

But, upon the very ſuppoſition, that there was actually a torrent or rivulet at *Rhinocorura*; yet, with what propriety could this be called *the river of Egypt*; a country, with which it has no communication; no part of which it waters: and this, in direct oppoſition to, or excluſive rather of, the *Nile*, the proper, and the only river of *Egypt*. For *Nahal Mitzraim*, i. e. the *river of Egypt*, is as local and determinate an expreſſion, as ארץ מצרים *Aretz Mitzraim*, i. e. the *land of Egypt*, the one as well as the other having the ſame relation to *Mitz-*

[7] Percuſſit adverſarios veſtros ab alveo fluminis uſque ad torrentem *Ægypti*; id eſt, ab *Euphrate* uſque ad *Nilum*. *D. Hieron. comment. in Iſ.* c. xxvii. lib. 7.

raim;

raim; whether *Mitzraim* be rendered *Egypt*, or the *Egyptians*. There would therefore be the ſame reaſon and propriety, (as certainly there can be none,) to look for the *land*, as for the *river of Egypt*, at *Rhinocorura*. Moreover, when a river takes its name from a country, it ſurely muſt be ſuppoſed to belong to, and to make a part of, that country. When *Abana* and *Pharfar* are ſaid to be rivers of *Damaſcus*, we immediately conclude that *Damaſcus* muſt be watered by the *Abana* and the *Pharfar*. To conclude otherwiſe, would be to confound the *ideas* and properties of names, as well as things: it would be the ſame, in the preſent caſe, as if we were to make the land of the *Philiſtines*, (of which *Rhinocorura* was originally a portion) a part of the land of *Egypt*; and the land of *Egypt* to be a part of the land of the *Philiſtines*.

The land of Egypt *did not reach beyond the* Nile.

For we do not find, that the ſettled boundaries of *Egypt*, either before, or at the time of *Joſhua*, reached beyond the *Nile*. Agreeable to which, is the deſcription that is given us of it by *Herodotus*: *That is Egypt*, ſays he[8], *which is inhabited by the Egyptians*; and again, *Thoſe are Egyptians who drink of the Nile*. And as the *Egyptians* lived then, as they may be ſuppoſed always to have done, within the reach and influence of that river, (inaſmuch as what lay beyond it on each ſide, belonged either to *Libya* or *Arabia*[9]) *the borders of Egypt*, (i. e. the land of *Zoan*, or the *Delta* in particular,) 1 *Kings* iv. 21. 2 *Chron.* ix. 26. and the banks of the *Nile*, will be one and the ſame thing. *Sihor* conſequently, which is the ſame with the *Nile*, may be ſaid, with propriety enough, (*Joſh.* xiii. 3. to be [עלפני *alpeni*] *before Egypt*, to lye *upon the face of it*; or *before thou entereſt into it*; as עלפני may be differently underſtood and rendered.

The eaſtern country adjacent to the Nile *inhabited by the* Philiſtines.

That *Egypt*, properly ſo called, was thus confined within the reach and influence of the *Nile*, will further appear from the nature and quality of thoſe diſtricts, which bordered upon it on each ſide. For, to omit the *Libyan*, and to ſpeak only of the *Aſiatic* territories:— theſe were, for the moſt part, wild and uncultivated: fit only for ſuch people to inhabit, who were hardy and laborious, and whoſe occupation lay chiefly in cattle; and as ſuch, they would have been an improper poſſeſſion, for the lazy and luxurious *Egyptians*. Whereas the *Philiſtines*, their neighbours, throve and grew numerous in this

[8] Θεὸς φὰς Αἴγυπτον εἶναι ταύτην τὴν ὁ Νεῖλος ὄμβρια ἄρδει. *Herod.* p. 108. Καὶ Αἰγυπτίους εἶναι τούτους οἳ ἐπέρθε Ἑλεφαντίνης πόλιος οἰκέουσι, χρεώμενοι τῷ ποταμῷ τούτῳ πίνουσι. p. *id.*

[9] Arabiæ conterminum claritatis magnæ, ſolis oppidum. *Plin.* l. v. c. 9. Ultra Peluſiacum oſtium Arabia eſt. *Id. Ibid.* c. v. Alexandria, a magno Alexandro condita, in Africæ parte, ab oſtio Canopico XII. M. P. *Ibid.* c. x.

country:

country: for beſides the ſeveral kings upon the ſea coaſt, we learn, (*Gen.* xxvi. 26. and xxi. 22.) that *Abimelech* had a ſettled polity and government in the inland country; with *Phicol captain of his hoſt, and Ahuzzah one of his friends*; or (as he would be called according to the faſhion of theſe times,) one of his *privy counſellors* or *favourites*. The flouriſhing and populous condition of this country, during the time of the *patriarchs*, was likewiſe the ſame, when the *Iſraelites* went out of *Egypt*. For it is ſaid (*Exod.* xiii. 17.) that *God did not lead them by the way of the land of the Philiſtines, although that was near, leſt they ſhould ſee war in the way:* from the number, no doubt, of its warlike tribes and communities, who would be ready to diſpute their paſſage with the ſword.

The Philiſtines *originally* Egyptians.

Yet even all this land, the land of the *Philiſtines*, to the very banks of the *Nile*, was included in the *land of Canaan*, and given by *promiſe* to the children of *Iſrael*. For the *Philiſtines* themſelves were ſtrangers in this land, and are therefore called by the LXX (*Judg.* iii. 31. and xiv. 1, &c.) ἀλλόφυλοι; as being originally of another φύλον, race, or country. It appears from *Gen.* x. 13, 14. that they were *Egyptians*; and, being driven out of their own country, they ſeized upon that which lay the neareſt to them; even that of the *Avims*, (*Deut.* ii. 23.) or *Hivites*, (*Joſh.* xiii. 2.) of the ſons of *Canaan*.

The land of the Philiſtines, *part of the* Land of promiſe.

Moreover, that the land of the *Philiſtines* was to be a portion of the *Land of promiſe* will appear from ſeveral texts of Scripture. Thus we learn from *Gen.* xxvi. 1. that, when *Iſaac* went unto *Abimelech* the king of the *Philiſtines*, at *Gerar*, *God told him to ſojourn in that land; for unto him, and to his ſeed, he would give all thoſe countries.* Which is further ſpecified, *Joſh.* xiii. 2, 3, &c. *there remaineth yet*, ſays the Lord to Joſhua, *very much land to be poſſeſſed:* viz. *all the borders of the Philiſtines, and all Geſhuri, from Sihor which is before Egypt, even unto the borders of Ekron northward.* This again is more particularly illuſtrated from *Joſh.* xv. 47. and *Judg.* i. 18. where the cities of the *Philiſtines*, that were given to the tribe of *Judah*, are *Ekron*, and *Aſhdod*, and *Gaza*, with their *towns and their villages, unto the river of Egypt, and the great ſea, and the borders thereof.*

Goſhen *another portion of the* Land of promiſe.

And that the *Land of promiſe* was not only to extend and ſtretch itſelf along the lower part of the *Nile*, (known to us by the name of the *Peluſiac* branch,) but even a great way higher up to the S. W. even to the parallel of the antient *Memphis* and of the *Red ſea*; will appear from the gift that was made to the *Iſraelites* of the *land of Goſhen*. For *Goſhen*, as will be proved, in its proper place, lay contiguous with this part of the *Nile*, and was watered by it. In proof of which, *Joſhua* is ſaid (*Joſh.* x. 41.) *to ſmite the countries and people from Kadeſh Barnea,*

Barnea, even unto Gaza, and all the country of Goſhen; i. e. all the countries and people that lay to the northward, as far as the *Great ſea:* and to the weſtward, as far as the *Nile*. And again, *Joſh.* xi. 16. *So Joſhua took all the land, the hills, and all the ſouth coaſt* (as it may be preſumed, where *Arad* the *Canaanite* dwelt, *Numb.* xxi. 1.) *and all the land of Goſhen.* The very ſituation therefore, and extent of the lot of the tribe of *Judah*, very naturally points out to us, *the river of Egypt*, i. e. the *Nile*, to have been their weſtern boundary. *The* Nile *the W. border of the tribe of* Judah.

And further, with regard to their *ſouth border*, it was to be *the wilderneſs of Zin*, (*Joſh.* xv. 1. p. 279.) which comprehended *Kadeſh Barnea*, and *Gerar*, and *Geſhuri*, or the country of the *Geſhurites*. Now as *Gerar* was ſituated betwixt *Kadeſh* and *Shur*, (*Gen.* xx. 1.) and the *Geſhurites*, together with the *Gezrites and the Amalekites*, (1 *Sam.* xxvii. 8. *Joſh.* xiii. 2, 3.) *were of old the inhabitants of the land, as thou goeſt to Shur, even unto the land of Egypt*; theſe tribes muſt lye contiguous with *Gerar* and *Kadeſh*, even as far as *Egypt*. As the tribe of *Judah* likewiſe was to poſſeſs not only *Goſhen*, but all the country of the *Philiſtines*, (for their bounds were to be from the *Red ſea*) *Ex.* xxiii. 31. which St. *Jerom*, as above, extends even as far as *Eloth* eaſtward.) Their ſouth and ſouth weſt border, containing within it the whole, or the greateſt part of what was called *the way of the ſpies Numb.* xxi. 1. and afterwards *Idumæa*; would extend itſelf, as I have already hinted, p. 279. from the *Elanitic* gulf of the *Red-ſea*, along by that of *Heroopolis*, quite to the *Nile* weſtward. The *Nile*, conſequently, in this view and ſituation, either with regard to the barrenneſs of the country of the *Philiſtines*; or to the poſition of it, with reſpect to the *Land of promiſe*, or to the *river Euphrates*; may, with propriety enough, be called, as it is in *Amos* vi. 14. נחל הערבה [*Nahal Harabah*] *the river of the wilderneſs*, as we tranſlate it; or the *weſtern torrent*, χείμαῤῥος τῶν δυσμῶν, as it is rendered by the LXX.

And here it may be likewiſe proper to obſerve, that the LXX, in their interpretation of ערבה (*Arbah*) no leſs than of *Sihor* and *Nahal Mitzraim*, do not always keep to the ſame word. In the text juſt now cited and elſewhere[1], *Arbah* is rendered ἐπὶ δυσμῶν, πρὸς δυσμὰς, &c. In 2 *Chron.* xxxiii. 14. ἀπὸ λιβὸς, καὶ ἀπὸ νότου; and, in 2 *Chron.* xxxii. 20. πρὸς λίβα. Where, and in 1 *Chron.* xxvi. 30. our tranſlators have underſtood *Arbah*, as denoting a ſituation to the weſtward. But in others, they tranſlate it the *plain*; and in *Deut.* xi. *The* Nile *called* Nahal Arbah, *i. e.* the river of the wilderneſs, *or the* weſtern *river.*

[1] *Numb.* xxi. 1. and xxxiii. 48, 49, 50. and xxxvi. 13. *Deut.* i. 1. and xi. 30. *Joſh.* v. 10, 11, 16. 2 *Sam.* ii. 29. and iv. 7.

30. the *champian*; taking it, as we may preſume, for ſome of the more level portions of what ſeems to be called, in general, (מדבר *Midbar*) *the wilderneſs*. Thus the *Arbah*[a], or plain, which is mentioned, *Deut.* i. 1. to be over-againſt the *Red-ſea*, (viz. at *Shur*, it may be ſuppoſed, and *Marah*:) and thoſe again, *Joſh.* iv. 13, and v. 10. that are deſcribed to be in the neighbourhood of *Jericho*, at *Gilgal*, and along the coaſt of the *ſalt ſea*, (places which I have ſeen,) agree very well with this interpretation and deſcription of the word *Arbah*.

Arbah *differently interpreted by the* LXX.

Yet theſe are not all the interpretations that are given us of *Arbah* by the LXX. For in *Job* xxxix. 6. *Iſ.* xxxiii. 9. xxxv. 1. xlv. 19. *Jer.* xvii. 6. and *Zach.* xiv. 10, it is rendered ἔρημος; in *Iſ.* xxxv. 6, γῆ διψῶσα; and in *Jer.* ii. 6, γῆ ἄπειρος: all of them appellations indeed, how literally ſoever different, very ſuitable to the nature and quality of theſe countries, which are *no where confined* by mounds, hedges, or incloſures; being for the moſt part ſo very dry and ſandy, as to be capable of very little, and frequently of no culture at all. As this diſtrict, therefore, which lies beyond the eaſtern or *Aſiatic* banks of the *Nile*, from the parallel of *Memphis*, even to *Peluſium*, (the *land of Goſhen* only excepted,) is all of it *Arbah*, γῆ διψῶσα, ἄπειρος, dry, barren, and inhoſpitable; the prophet *Amos* might, with propriety enough, call *the river of Egypt*, *the river of the wilderneſs*; or (if the ſituation be more regarded) *the weſtern river*.

The etymology *of the different names of the* Nile.

From the ſite, then, and poſition of this river, let us now inquire into the reaſon and *etymology* of the names which are given to it, both in ſacred and prophane hiſtory. Theſe will likewiſe further illuſtrate the matter in diſpute. Now it is called in Scripture, *the river of Egypt*, in contradiſtinction to the *Euphrates*, which being conſtantly, as it may be preſumed, a larger ſtream, (though both of them are conſiderably augmented at their reſpective rainy ſeaſons;) is called by way of eminence, *Nahal* only, or *the river*. Yet, notwithſtanding the ſacred hiſtorian might diſtinguiſh the former, by the country to which it belonged, (as the *Arabian* writers ſtill do the ſame, by calling it *Neel Meſſir*,) the *Egyptians* themſelves had no occaſion to uſe the appellative; but, as it was their only river, ſo they might call it ſimply

[a] ערבה Talem locum ſeu terræ partem ſignificat, quæ neque montoſa eſt, neque declivis, ſed plana. Arbitror a mixtura dici, h. e. mixto ſapore pabuli, quod in eo creſcit & jumentis conveniens eſt & gratum, quæ acidis delectantur. Sunt enim ejuſmodi campeſtria non melliflua, ſicut ſunt valles vel colles; nec plane ſterilia, qualia ſunt loca aſpera & deſerta; ſed ubi *μίγμα* creſcit, id quod *Eſaias* בליל חמיץ *migma aceto ſum* vocat cap. xxx. 22. Vid. *C. Kirch.* in voce ערבה.

Nahal;

Nahal; which, with little variation, will be easily formed into Νεῖλος, or *Nilus*, as *Græcian* and *Roman* strangers might pronounce it. *Sihor*, as has been already occasionally proved from St. *Jerom*, was another name given to this river in Scripture; being taken from the black tawny complexion of its water, occasioned by the great quantity of mud that is brought down with it from *Æthiopia*. For (שהר) *Sihor* is the same as *black*. Neither is this name peculiar to the Scriptures. For *Pliny*[3], *Solinus*[4] and *Dionysius*[5] call it *Siris*: *Plutarch's Osiris*[6], no less than *Melas* or *Melo*, as likewise *Ægyptus*[7], other names by which it was known[8], have the like interpretation.

Sihor, Osiris, Melas, Egyptus, *signify the dark colour of its water.*

And therefore, besides this particular quality or complexion of the waters of *Sihor*, which is highly applicable to the *Nile*; it will still appear more evident, from Scripture, that *the river of Egypt*, the *Nile* and *Sihor*, were one and the same. For *Sihor*, as it is mentioned, *Jer.* ii. 18. could be no other. *What hast thou*, says the prophet, *to do in the way of Egypt, to drink the waters of Sihor?* Which is further explained, by way of *antithesis*, in the latter part of the verse; *or what hast thou to do in the way of Assyria, to drink the waters of the river?* i. e. of the *Euphrates*. For *Sihor*, or the *Nile*, was as properly the *river of Egypt*, as the *Euphrates* was of *Assyria*. In like manner the prophet *Isaiah* (xxiii. 3.) uses the same word *Sihor*, which can only be understood of the *Nile*. *The seed of Sihor*, says he, *the harvest of the river is her revenue*: i. e. flax, wheat, rice, and other commodoties, produced by the overflowing and fertilizing quality of the *Nile*, are transported from *Egypt*, to the great benefit and advantage of the merchants of *Tyre*. *Sihor* therefore, as it stands in the former text, in contradistinction to the *Euphrates*; and, as it is described in the latter, as the cause of great plenty and abundance; agrees in every circumstance with the *Nile*; and consequently cannot, with the least propriety, be ascribed to, even provided there actually was an obscure, insignificant torrent at, *Rhinocorura*.

The river of Egypt *and* Sihor *the same.*

They have both the like properties ascribed to them.

[3] Sic quoque Nilus etiamnum *Siris*, ut ante nominatus per aliquot millia. Lib. v. c. 9.

[4] A Cataracte ultimo tutus est Nilus. Relicto tamen hoc pone se nomine, quod *Siris* vocatur, mox inoffensus meat. C. xlv.

[5] Σῖρις ὑπ' Αἰθιόπων κέκληται. Περιηγ. ver. 223.

[6] Σοφώτεροι τῶν Ἱερέων---τὸν Νεῖλον Ὄσιριν καλοῦσιν. *Plut. de Isid. & Osiride*, § 33.

[7] Εν Νείλῳ ποταμῷ τῆς Αἰγύπτου, πρότερον δὲ οὕτω καλουμένῳ Μέλας.---ἀλλὰ δὲ ὅτι Μέλας πρότερον καλούμενος, μετεκλήθη Νεῖλος ἀπό τινος &c.--Αἰγυπτῆναι est μελάναι. Vid. *Plut.* de Fluviis cum Not. *Maussaci*.

[8] *Viridem Ægyptum nigra fœcundat arena.* Virg. Georg. not. Serv.

Ostia nigrantis Nili. Claud. Phœn. ver. 100.

Χεύματι πιλώεντι νέην περιβάλλεται εἶλυν. *Nonn. Dionys.* l. iii. ver. 100. *Herod. Euterpe*, p. 105. ed. *Steph.*

They denote the same boundary.

As *Sihor* then, in theſe texts, appears to be no other river than the *Nile*, there is ſufficient reaſon to take it for the ſame, wherever and as often ſoever as it may occur in Scripture. And of this, I preſume, the following texts will be a ſufficient proof and demonſtration. For 1 *Chron.* xiii. 5. where *David* is ſaid *to gather all Iſrael together, from Sihor of Egypt, even unto the entring in of Hamath*; *Solomon*, in the parallel texts, 1 *Kings* viii. 65. and 2 *Chron.* vii. 8. is ſaid to have *kept a great feaſt, and all Iſrael with him, from the entring in of Hamath unto the river of Egypt. Sihor of Egypt*, and *The river of Egypt* therefore, muſt be indiſputably one and the ſame river.

The river of the wilderneſs *the ſame with* Sihor *or the* Nile.

We meet with the ſame *phraſeology*, deſcriptive likewiſe, as it appears to be, of the extent of the *Land of promiſe*, in the prophet *Amos* (vi. 14.) where it is ſaid, *they ſhall afflict you from the entring in of Hamath, unto the river of the wilderneſs.* Which may further confirm what has been hinted at already, that *The river of the wilderneſs*, or, as it may be otherwiſe rendered, *The weſtern river*, was another name only for the *Nile*, or *The river of Egypt.*

The Iſraelites *were at one time or other in poſſeſſion of the whole* Land of promiſe.

The promiſe, then, which God made to *Abraham*, that *he would give to his ſeed, the land, from the river of Egypt*, (i. e. from *Egypt* itſelf, as *Joſephus* underſtood it, *Antiq.* l. viii. c. 2.) *unto the river Euphrates*, was either fulfilled by his ſervant *Joſhua*, or afterwards by *David* and *Solomon*, 1 *Kings* ix. 20. 2 *Chron.* viii. 7, &c. And though ſome part or other of *this promiſed land*, either as it bordered upon the *Euphrates*, the *Nile*, or the *entring in of Hamath*, might not always continue in the poſſeſſion of the *Iſraelites*, 2 *Kings* xiv. 28. yet it is ſufficient in this diſquiſition, to prove, that they had the *promiſe* of it; and at one time or other, were in actual poſſeſſion. For, what portions of it ſoever they might afterwards loſe, or be driven out of, it was entirely owing to their ſins and tranſgreſſions; when, as the ſacred hiſtory acquaints us, ſuch cities or people as they would not conquer, or keep in ſubjection, after they had conquered them, *ſhould prove ſnares and traps unto them, and ſcourges in their ſides, and thorns in their eyes, until they periſhed from off that good land, which the Lord their God had given them.* Ex. xxiii. 33. Numb. xxxiii. 55. Deut. vii. 16. Joſh. xxiii. 13.

CHAP.

CHAP. III.

Geographical obſervations relating to Egypt.

NO part of the coaſt of *Egypt*, which fell under my obſervation, could be ſeen afar off. The mariners, in approaching it, eſtimate the diſtance, by the depth of water: ſuch a number of fathoms uſually anſwering to the ſame number of leagues. That portion of it, particularly, which lies betwixt *Tineh*[1], the ancient *Peluſium*, and the branch of *Dami-ata*, is exceedingly low and full of lakes and moraſſes; agreeing ſo far, even to this day, with the etymology of the name. The lakes abound with a variety of excellent fiſh; which they either diſpoſe of, whilſt they are freſh, among the neighbouring villages; or elſe they ſalt and ſell them afterwards to the *Grecian* merchants.

Of Egypt, *and the ſeven mouths and branches of the* Nile.

Tineh, *or* Peluſium.

Dami-ata is one of the moſt conſiderable cities for trade, in *Egypt*. It lies upon the eaſtern banks of the *Nile*, at five miles diſtance from the ſea, and about ſixty to the N. N. W. of *Tineh*. The branch that runs by it, has been generally received for the *Peluſiac*, by miſtaking this city for the ancient *Peluſium*; whereas *Dami-ata* ſeems rather to be a corruption of its antient name *Thamiathis*, or Ταμιάθις as *Epiphanius* writes it. This branch, therefore, as well from the ſituation as the largeneſs of it, ſhould be the *Pathmetic*, or *Phatnic* as *Strabo* calls it; betwixt which, and the *Peluſiac*, were the *Mendeſian* and the *Tanitic*; but of theſe I could receive no information.

Dami-ata, *or* Thamiathis.

Sixteen leagues to the N. N. W. of the *Pathmetic* mouth, is *Cape Brullos*, where the *Sebennitic* branch is ſuppoſed to have diſcharged itſelf: after which follows the *Bolbutic*, at ſeventeen leagues diſtance to the S. W. *by* W. This is called at preſent, the branch of *Rozetto* (or *Raſſid*, as the inhabitants pronounce it) from a large and populous city, ſituated about a league above the mouth of it. *Raſſid*, however, may import a *Cape* or *head-land*, ſuch as it might originally have ſtood upon, before the additions, which will be hereafter mentioned, were made to it by the *Nile*.

Cape Brullos.

Rozetto.

At *Me-dea*, the ancient *Heraclium*, four leagues further, there is another branch of the *Nile*, though much ſmaller than the former; and two leagues beyond it, in the ſame weſterly direction, we have

Me-dea, *or* Heraclium.

[1] *From* טִין (Tin) clay, *or* mud, *rendered by the Greeks* πηλούσιον, *from* πῆλος, *a word of the like ſignification in their language.*

Bikeer, *or* CANOPUS.

an inlet, with some ruins known by the name of *Bikeer*. As this place lies five leagues from *Alexandria*, and the branch of *Me-dea* seven, we may be induced, from the authority of *Strabo* [2], to take the one for the ancient city *Canopus*, the other for the branch of the same name. But, unless at the time of the inundation, this, no less than the *Sebennitic* and *Pelusiac* branches, are of little account; inasmuch as the *Nile* discharges itself chiefly through those only of *Rozetto* and *Dami-ata*. What was observed long ago, though upon a different occasion, concerning the drying up of these chanels, is now literally come to pass:

> Nilus in extremum fugit perterritus orbem,
> Occubuitque caput, quod adhuc latet; *ostia septem*
> *Pulverulenta vacant, septem sine flumine valles.*
>
> *Ovid.* Metam. de Phaëton.

Scandarea *or* ALEXANDRIA.

Portus Magnus, Portus Eunosti & Cibotus.

SEPTEM STADIUM.

Scandarea, as *Alexandria* is called at present, has two ports; the new one, which the vessels of *Europe* resort to, and the old one, where those only from *Turkey* are admitted. The former is what *Strabo* calls the *Great port* [3], lying to the eastward of the *Pharos*: the other is his port of *Eunostus*, where was also the *Cibotus*, which had formerly a communication with the *lake Mareotis*, that lies behind it to the south. The present city is situated betwixt them, upon what was probably the *Septem Stadium* of *Strabo* [4]; whereas the old city lay further towards the N. and N. E.

The ruins of Alexandria. *The ancient walls.*

The cisterns.

Considering the great devastations which have attended the *Saracen* conquests in other places, it is somewhat extraordinary, that the greatest part of the ancient walls, together with their respective turrets, should have continued intire, quite down to this time. In the same condition likewise, are the cisterns, which, at the overflowing of the *Nile*, were annually supplied with water. These were of a great depth, having their walls raised, by several stages of arches, upon which likewise the greatest part of the city itself was erected. The

[2] Ἔστι ἡ ἀπὸ Πηλουσίου παραλία πρὸς τὴν ἑσπέραν πλέουσι, μέχρι μὲν τοῦ Κανωβικοῦ στόματος, χιλίων που, καὶ τριακοσίων σταδίων, ὃ δὴ καὶ βάσιν τοῦ Δέλτα ἔφαμεν. Ἐντεῦθεν δ' ἐπὶ Φάρον τὴν νῆσον ἄλλοι σταδίοι πεντήκοντα πρὸς τοῖς ἕκατον. Strab. l. xvii. p. 1140. [Canopus inde (ab *Alexandria* sc.) duodecimo disjungitur lapide. *Ammian.* l. xxii. cap. 41.] Κάνωβος δ' ἐστὶ πόλις ἐν εἴκοσι καὶ ἑκατὸν σταδίοις ἀπὸ Ἀλεξανδρείας πεζῇ ἰοῦσιν. p. 1152. — Μετὰ δὲ τὸν Κάνωβόν ἐστι τὸ Ἡράκλειον τὸ Ἡρακλέους ἔχον ἱερόν. Εἶτα τὸ Κανωβικὸν στόμα, καὶ ἡ ἀρχὴ τοῦ Δέλτα. p. 1153. — Μετὰ δὲ στόμα τὸ Κανωβικόν ἐστι τὸ Βολβιτικόν. Εἶτα τὸ Σεβεννιτικὸν καὶ τὸ Φατνικόν. τρίτον ὑπάρχον τῷ μεγέθει παρὰ τὰ πρῶτα δύο, οἷς ὥρισται τὸ Δέλτα. — Τῷ δὲ Φατνικῷ συνάπτει τὸ Μενδήσιον. Εἶτα τὸ Τανιτικὸν, καὶ τελευταῖον τὸ Πηλουσιακόν. Ἔστι δὲ καὶ ἄλλα τούτων μεταξὺ, ὡς ἂν ψευδοστόματα ἀσημότερα. Strab. ibid.

[3] *Strab.* l. xvii. p. 1144—5. [4] Id. p. 1141.

grandeur

grandeur and ſumptuouſneſs of the antient *Alexandria*, may be further eſtimated from two rows of beautiful *granate* pillars, (ſeveral whereof wereſtanding in 1721,) which may be ſuppoſed to have conſtituted the ſtreet that is deſcribed by *Strabo*, and reaching from the *Necropolitic*[5] part of the city, to the gate of *Canopus*. The *cryptæ*, or *catacombs*, which gave denomination to it, are moſt of them remaining; being little different from thoſe that have been deſcribed at *Latikea*, and were probably intended for the ſame uſe, and not for the reception of *mummies* or embalmed bodies, like thoſe at *Sakara* near *Memphis*.

Pompey's pillar lies at a diſtance to the ſouthward of the old city. It is of the *Corinthian* order; though the foliage of the capital is badly executed. In expectation, it may be preſumed, of finding a large treaſure buried underneath it, a great part of the foundation, conſiſting of ſeveral fragments of different ſorts of ſtone and marble, has been removed; ſo that the whole fabrick reſts at preſent upon a block of white marble ſcarce two yards ſquare, which, upon touching it with a key, in the ſame manner with the beautiful ſtatue of at *Rome*, ſounds like a bell. Some of the broken pieces of marble, which I have mentioned, are inſcribed with *hieroglyphicks*; a circumſtance which may induce us to ſuſpect, that this pillar was not erected by the *Egyptians*, (who could not well be imagined thus to bury their ſacred inſcriptions;) but by the *Greeks* or *Romans*; nay, later perhaps than *Strabo*; who would ſcarce have omitted the deſcription of ſo remarkable a curioſity, which could not but fall under his obſervation. *Pompey's pillar.*

The *Delta* was computed to commence from the *Canopic* branch of the *Nile*, which fell in at *Me-dea:* from hence to *Rozetto*, the *caravans* are guided, for the ſpace of four leagues, by a range of pillars, as in the *lake of Marks*, (p. 126.) The channel, which ſupplied *Alexandria* with water, lyes all the way upon the right hand; and, for want of being employed as formerly, diſcharges itſelf chiefly into this of *Me-dea*. There are few, or no tokens, of the *Nile's* inundation to be met with, from *Alexandria* to *Rozetto*; the whole tract appearing to have been originally either a continuation of the ſandy coaſt of *Libya*, or elſe to have been an iſland. In ſailing likewiſe to the eaſtward, beſides ſeveral ſmaller hillocks of ſandy ground, we ſee a pretty large one to the E. of the *Bolbutic*[6] mouth of the *Nile*, another of *The* Delta *commenced from the* Canopic *branch.* *The iſlands that might have originally formed it.*

[5] Id. p. 1145.

[6] This ſeems to be the ſame, that is taken notice of by *Strabo*, under the name of *Cape*

Cape Brullos, and a third to the W. of *Damiata*. All theſe might have been originally, ſo many iſlands, and have ſerved, from their very ſituation, to give the firſt check to the ſtream; and afterwards, by gradually collecting and retaining the mud, have laid the firſt foundation of the *Delta*. But further notice will be taken of this curious ſubject.

The banks of the Nile *full of villages.*

Except at the time of the inundation, when the whole country is one continued lake, no diverſion can be attended with greater pleaſure, than travelling upon the *Nile*. At every winding of the ſtream, ſuch a variety of villages, gardens, and plantations, preſent themſelves to our view, that from *Rozetto* to *Kairo*, and from thence all the way down, by the other branch, to *Dami-ata*, we ſee nothing but crowds of people, or continued ſcenes of plenty and abundance. The many turnings of the river make the diſtance, from *Kairo* to each of thoſe cities, near cc M. though in a direct road, it will ſcarce amount to half that number.

Kairo, *the antient* Babylon.

Kairo, or *Al Kahirah* [8], or in the eaſtern appellation, *Al Meſſer*, lies nearly two miles to the E. of the *Nile*, and fifteen to the ſouthward of the *Delta*, as *Memphis* [9] which lay over againſt it, on the weſtern ſhore, is ſaid to have done. It is built in the form of a *creſcent*, under the northern ſhade of that mountain, where the ancient caſtle of the *Babylonians* [1] was ſituated. The *Khalis*, the *Amnis Trajanus* [2] of the ancients, which annually ſupplies the city with water, runs from one point of it to another, and is little more than five

ΑΓΝΟΥ ΚΕΡΑΣ. Μετὰ δὲ τὸ Βαλβίτινον στόμα ἐπιπλέον ἴσχειλαι ταπεινὴ καὶ ἀμμώδης ἄκρα· καλεῖται δὲ Ἀγνοῦ κέρας. l. xvii. p. 1153.

[8] ٱلقاهرة Al Kahirah, i. e. *Victrix*, a قهر vicit, ſubjugavit. *Gol.* The ſame interpretation hath been put upon *Kair-wan*, notwithſtanding what hath been already obſerved, p. 116. *Occuba*, ſays *D'Avity*, *baſtit au meſme lieu où il avoit defait le* Comte Gregoire, *une ville qu' il nomma* Cayre, *c' eſt-à-dire* Victoire; *puis on l'appelle* Cayravan, *c' eſt-a-dire* deux Victoires, *à cauſe d'une autre que les* Arabes *y obtinrent depuis.* Vid. *La Deſcription generale de l'*Afrique *par* P. D'Avity, p. 49. But the inhabitants of *Egypt*, and of all the *Levant*, uſually call *Kairo Meſſer*, a name taken from *Mizraim* the ſon of *Cham*, the firſt planter of this country. Urbs *Foſtat* eſt ipſamet *Metſr*, ſic dicta a *Miſram* filio *Cam*, filii *Noë*, cui pax: ipſe enim eam ædificaverat primitus. Dicitur autem appellata fuiſſe *Foſtat*, quod volente *Amro* filio *Aas*, poſt captam *Metſr*, proficiſci *Alexandriam*, præceperit ut præcederet eum *Alfoſtat* (i. e. tentorium) et figeretur aut tranſportaretur ante ſe: quare accidit ut columba deſcenderet, ovum in ejus vertice pareret. Quod ad *Amrum* delato, juſſit ut relinqueretur tentorium eodem in ſitu, donec columba ovum ſuum perficeret. *Geogr. Nub.* p. 97.

[9] Μέμφις δ' ἐσὶ ἀπὸ τῦ Δέλτα τρίσχοινον εἰς αὐτήν. *Strab.* ut ſupra. *Plin.* l. v. c. 9.

[1] *Strab.* l. xvii. p. 1160.

[2] Δι' ἧς (Ηλιοπόλεως) καὶ Βαβυλῶνος πόλεως Τραϊανὸς, πολαμὸς ῥεῖ. *Ptol. Geogr.* l. iv. c. 5.

miles

miles long. *Kairo* therefore, or *Grand Kairo*, according to the uſual appellation, is much inferior in extent [3] to ſeveral cities of *Chriſtendom*. However, it muſt be allowed to be exceedingly populous. For ſeveral families live in one houſe; and a number of perſons live in each chamber of it; during likewiſe the buſy time of the day, the principal ſtreets are ſo crowded with people, that there is no ſmall difficulty to paſs by them.

The caſtle of Kairo, *formerly the caſtle of the* Babylonians.

The way that leads up to the caſtle, is cut through the rock; from whence this ridge of eminencies ſeems to have been called *Jibbel Moccatte*, or *Mocat-em*, i. e. *the mountain that is hewn or cut through*. Beſides other places of leſs account, within the caſtle, we are firſt of all ſhewn a ſpacious magnificent hall, ſupported by a double row of large *Thebaic* columns; then we are ſhewn the *Beer el Hallazoune*, or the *Snail-like well* [4], which, with the ſtair caſe that goes winding round it, are hewn out of the natural rock. Both the hall and the well are looked upon, by the inhabitants, to be works of ſuch grandeur and expence, that the patriarch *Joſeph*, whoſe priſon they pretend likewiſe to ſhew us, is ſuppoſed to have been the founder. But the well was probably contrived by the *Babylonians*, when they firſt built the caſtle: as both of them are aſcribed (the rebuilding of this rather) to *Salah Oddin Joſeph Ebn Job*, by *Abdol Caliph*, in his hiſtory of *Egypt*, p. 85.

Geeza, *the antient* Memphis.

Over againſt *Kairo*, on the *Libyan* banks of the *Nile*, is the village *Geeza*, where we ſhall endeavour to prove, that *Memphis* was formerly ſituated; though at preſent it is intirely buried in ſoil.

The ſituation of the Pyramids.

Twelve miles further, in the ſame direction, are the pyramids, erected upon that ridge of the *Libyan* mountains which bounds the inundation of the *Nile* to the weſtward. The caſtle of *Kairo*, has the like mountainous ſituation on the *Aſiatic* ſide of the river; and, in this manner, the *Nile* is confined, for the ſpace of two hundred leagues, quite up to the *cataracts*; a long chain of eminencies, ſometimes at four, ſometimes at five or ſix leagues diſtance, conſtantly bounding

The Upper Egypt *confined by a range of mountains on each ſide.*

[3] Provided the villages of old *Kairo* and *Boulac*, (whereof this lies two miles to the N. E. the other at the ſame diſtance to the W.) ſhould have formerly belonged to this city, (and indeed, the many interjacent ruins ſeem to point out ſomething of this kind,) then *Kairo* would not have been inferior, in extent to the *metropolis* of *Great Britain*. *Buntingius* makes it to have the ſame dimenſions with the antient *Ninive*, or to be ſixty miles in circuit; equal to three days journey, according to the prophet *Jonas* iii. 3.

[4] This well conſiſts of two ſtages, being in all, about 44 fathom deep. The upper ſtage is 16 foot broad one way, and 24 the other. The water, which is brackiſh, is drawn up, in the *Perſian* wheel, by oxen.

the

the inundation on each ſide. Such, in general, is the plan; ſuch likewiſe is the extent of the *land of Ægypt*. As for this *land of Goſhen* which lay contiguous to it, or (in the Scripture phraſe) *was near it*, it will be deſcribed, when we treat of *Arabia*.

CHAP. IV.

The ancient ſituation of Memphis, *further inquired into and conſidered.*

Memphis *not ſituated at* Metraheny, *but* Geeza.

A LATE curious traveller, has endeavoured to prove, that the ancient city *Memphis* was not ſituated at *Geeza*, where it has commonly been placed; but at *Metraheny* or *Mohanan*, ſeveral miles further to the ſouthward. *What fixes*, (ſays he, *Deſcript. of the Eaſt*, Vol. i. p. 41.) *the ſituation of* Memphis *to this part, is Pliny's account, who ſays*, (l. xxxvi. c. 12.) *that the* Pyramids *were between* Memphis *and the* Delta. But, in anſwer to this, it may be remarked, that the ſame *Pliny* acquaints us in another place, (l. v. c. 9.) that *the* pyramids *lay betwixt* Memphis *and the Arſinoite Nomos*, and conſequently muſt be to the weſtward of *Memphis*; as they actually are, provided *Geeza* is the ſite of that ancient city.

Great authorities from the ancient geography that it was ſo.

That this deſcription of *Pliny's*, is rather to be received than the former, appears from ſeveral geographical circumſtances, taken as well from that author as from others.[1] *Diodorus Siculus* (p. 45. § 50.) acquaints us, that *Memphis was moſt commodiouſly ſituated, in the very key or inlett of the country, where the river, beginning to divide itſelf into ſeveral branches, forms the* Delta. This account is further confirmed and more particularly circumſtantiated by *Pliny* himſelf, who tells us (l. v. c. 9.) that Memphis *was only fifteen miles from the* Delta: and *Strabo*, (l. xvii. p. 555.) that it was τεσσαρων only, or ninety furlongs, which do not make twelve miles. *Ptolemy*[1] makes a difference of ten minutes in their longitudes, and the like in their latitudes; whereby their diſtances, by computation, will fall in very nearly with *Strabo's* account, and make little more than XII miles. Whereas, if we are to look for *Memphis* at *Metraheny* or *Mohanan*, where this au-

[1] The point of the *Delta* 62°. 0 Long. 30°. Lat.
Memphis - - - - - 61°. 50'. 29°. 50'. *Ptol.* l. iv. c. 5.

thor has placed it, the diſtance of it from the *Delta*, (eſpecially as it is laid down in his map) will be XL miles; *i. e.* more than thrice as much as it is recorded by *Pliny*, *Strabo*, and *Ptolemy*.

Theſe authorities of greater weight than heaps of ruins, ramparts, &c.

The near agreement, therefore, among theſe geographers, in the diſtance they have left us betwixt *Memphis* and the *Delta*; and the ſame continuing ſtill to be the diſtance, as near as can be required, betwixt the *Delta* and *Geeza*, appears to be a much ſtronger proof for ſituating *Memphis* at *Geeza*, than any heap of ruins, or than any adjacent mounds or channels (as they are urged by that author) can poſſibly be, in favour of *Metraheny*. For ruins alone, unleſs ſupported by other circumſtances and arguments, will, in no country, determine the ſituation of any particular city: much leſs in *Egypt*, which boaſted formerly of having *twenty thouſand*[2]. Moreover, mounds and channels were ſo common all over *Egypt*, that, conſidering the fluctuating ſtate of that country, and the yearly alterations that were made in it by the *Nile*, any one particular ſet or ſyſtem of them, will be as uncertain and precarious a proof, as ruins. Whereas the *Delta* is a fixed and ſtanding boundary, lying at a determinate diſtance from *Memphis*; from which we find it no further removed in the ancient geography, than *Geeza* is in the modern.

A rampart at Metraheny, *proves* Memphis *to have been at* Geeza.

But even upon a ſuppoſition, that thoſe traces of large mounds and channels, which are reported to be at *Metraheny*, were the remains of the ancient *Memphitic* rampart; yet they will by no means determine the ſite of this ancient city to have been there. They will rather prove the contrary; inaſmuch as the rampart, mentioned by *Herodotus*, (p. 141.) is ſaid to lye a hundred furlongs beyond it to the ſouthward, (let us ſuppoſe *Metraheny* to be the very ſpot;) *Memphis* conſequently ſhould not be ſought for there, but a hundred furlongs below it to the northward; *i. e.* a little more or leſs, where we have the preſent *Geeza*.

The preſent diſtance betwixt Geeza *and the pyramids, the ſame as laid down betwixt* Memphis *and the pyramids.*

Another argument, why we may fix the ancient *Memphis* at *Geeza*, rather than at *Metraheny*, is the ſituation of the *Pyramids*; a landmark, ſtill more certain and determined than the *Delta*; which may ſtill be ſubject to ſome ſmall alterations. Now *Strabo* acquaints us in one place[3], *that the* Pyramids *were near* Memphis; and, in another[4], that they were placed on an eminence, at forty furlongs or five miles

[2] Πόλις ἐν αὐτῇ ῥυέσθαι τὰς ἀπάσας πότε δισμυρίας τὰς οἰκεμμένας. *Herod.* p. 179.

[3] Ἀφορῶντα δ' ἐνθάδε (from *Babylon*) τηλαυγῶς αἱ Πυραμίδες ἐν τῇ πεδιάδι ἐν Μέμφει, ἃς εἰσὶ πλησίον. *Strab.* l. xvii. p. 555.

[4] Τεθράκοντα δ' ἀπὸ τῆς πόλεως (Μέμφεως) σταδίους προελθόντι, ὀρεινή τις ὀφρύς ἐστιν, ἐφ' ἧς πολλαὶ μὲν Πυραμίδες εἰσὶ τάφοι τῶν βασιλέων. *Id. Ibid.*

diſtance

distance from it. *Pliny* [5], makes the distance one mile further, or six miles; the difference possibly arising from hence, that *Pliny* computed to the *Pyramids* themselves; whereas *Strabo* might only compute to the foot of the ὀρεινὴ ὀφρὺς, or *rising ground*, upon which they were situated. Now the village of *Geeza* (which lies upon the banks of the *Nile*) is commonly computed to be twelve miles from the *Pyramids*. If the city of *Memphis* therefore was five or six miles broad, (and *Diodorus Siculus* [6] tells us, *it was one hundred and fifty furlongs*, i. e. near nineteen miles, *in circuit*;) then the distance assigned by *Pliny* and *Strabo* is, as near as can be required, the present distance. Whereas, by placing *Memphis* at *Metraheny* or *Mohanan*, the *Pyramids* will be at three or four times that distance from it; too far surely from being (πλησίον) *near*, according to the expression of *Strabo*; or at *six miles* distance, at the most, according to *Pliny*.

The pyramids *built upon, and* Memphis *situated under, the same mountain.*

This vicinity betwixt *Memphis* and the *Pyramids*, is further illustrated from the relation, which each of them had to one and the same sandy mountain of *Libya*: *Memphis* being described to be situated under it, and the *Pyramids* upon it. And of this, *Herodotus* [7] gives us sufficient testimony. For he tells us, that *Memphis*, by being built upon the ancient bed of the river, *lay under the sandy mountain of Libya*; which is likewise described to be *the only sandy mountain of Egypt*, whether in that, or in any other direction. The like appellations are given to the mountain, upon which the *Pyramids* were built: for the stones employed in building them, are said to have been carried, from the *Arabian* to the *Libyan* mountain [8]. And again, over against the *Arabian*, *is another stony mountain of Egypt, towards Libya, covered with sand, where are the Pyramids*. There is some little variety indeed in these expressions; but the meaning and intention of them all, is the same; inasmuch as τὸ ψάμμιον ὄρος and ὄρος ψάμμῳ κατειλημμένον, no less than Λίβυκον ὄρος, ὄρος τῆς Αἰγύπτου πρὸς Λιβύης, and Αἰγύπτου ὄρος τὸ ὑπὲρ Μέμφιος, are appellations of the very same force and signification. *Herodotus*, in another place, determines the parti-

[5] Pyramides sitæ sunt in parte Africæ, monte saxeo sterilique inter Memphim oppidum, & quod appellari diximus Delta, a Nilo minus quatuor millia passuum, a Memphi sex. *Nat. Hist.* l. xxxvi. c. 12.

[6] Τὸν μὲν οὖν περίβαλον τῆς πόλεως ἐποίησε σταδίων ἑκατὸν καὶ πεντήκοντα. *Bibl.* l. i. p. 46.

[7] Τὸν γὰρ ποταμὸν πάντα ῥέειν παρὰ τὸ ὄρος τὸ ψάμμιον πρὸς Λιβύης. *Herod.* p. 141. Ed. *Steph.* Παρὰ τὸ ὄρος τὸ ὑπὲρ Μέμφιος. *Id.* p. 168. Ψάμμον μοῦνον Αἰγύπτου ὄρος τοῦτο τὸ ὑπὲρ Μέμφιος ἔχον. *Id.* p. 105.

[8] Πρὸς τὸ Λιβυκὸν καλεύμενον ὄρος. *Id.* p. 155. Τὸ δὲ πρὸς Λιβύης τῆς Αἰγύπτου ὄρος ἄλλο πέτρινον τείνει, ἐν ᾧ αἱ Πυραμίδες ἔνεισι, ψάμμῳ κατειλημμένον. *Id.* p. 103.

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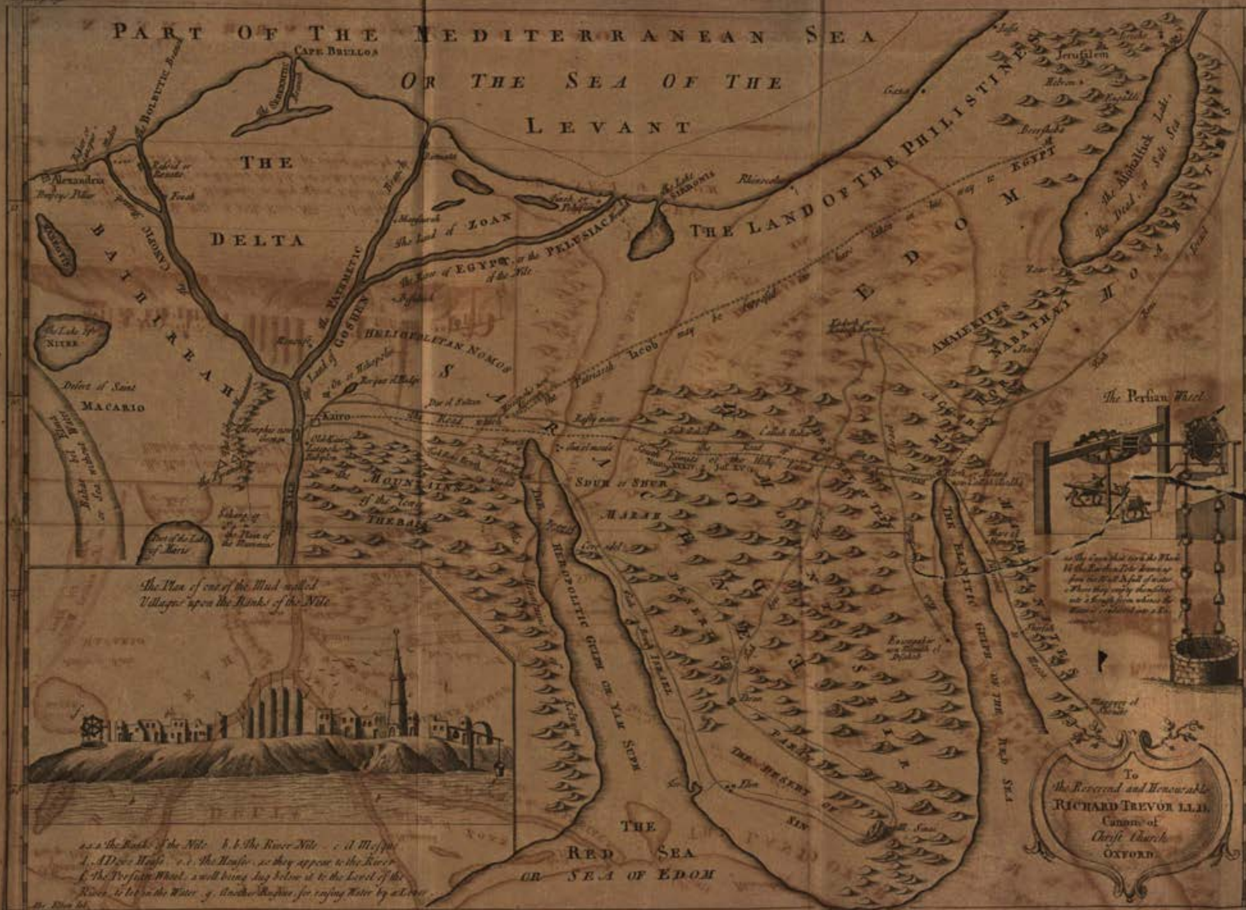


PART OF THE MEDITERRANEAN SEA
OR THE SEA OF THE
LEVANT
CAPE BRULLOS
Alexandria
THE
DELTA
THE LAND OF THE PHILISTINES
Jerusalem
Gaza
Rhinocolura
The Lake SIRBONIS
The Land of ZOAN
The River of EGYPT, or the PELUSIAC Branch of the Nile
HELIOPOLITAN NOMOS
The Land of GOSHEN
BAHIREAH
Desert of Saint MACARIO
The Lake of NITRE
Kairo
MOUNTAINS of the Upper THEBAIS
SPUR or SHUR
MARAH
EDOM
AMALEKITES
NABATHÆI
The Asphaltick Lake, The Dead, or Salt Sea
The Persian Wheel
HEROOPOLITIC GULPH
THE ELANITIC GULPH OF THE RED SEA
THE DESERT OF SIN
Elim
Tor
THE RED SEA OR SEA OF EDOM
The Plan of one of the Mud walled Villages upon the Banks of the Nile
a.a.a. The Banks of the Nile b.b. The River Nile c. A Mosque d. A Dove House e.e. The Houses as they appear to the River f. The Persian Wheel, a well being dug below it to the Level of the River to let in the Water g. Another Engine for raising Water by a Lever
To the Reverend and Honourable RICHARD TREVOR LL.D. Canons of Christ Church OXFORD

cular quality and height of this part of the *Libyan* mountain, where the *Pyramids* were placed, by calling it (λόφος,) *a ridge* or *eminence, ſcarce a hundred foot high*[9], *viz.* above (as we may add) the plains below. Now the ὀρεινὴ ὀφρὺς, as *Strabo* names this ſame part of the *Libyan* mountain, being an expreſſion equivalent to the λόφος (or the ὀρεινὸν ἐπανάστημα, as it is interpreted) of *Herodotus*, we may preſume they are both deſcriptive of the ſame place; and conſequently, the ſame diſtance of ſix miles that is aſcribed to *Memphis* from the one, will be the like diſtance from the other.

The pyramids diſtinctly ſeen from Babylon, *or* Kairo.

Nay, provided *Metraheny* ſhould be the ancient *Memphis*, the account which *Strabo* has given us of it, cannot be true; who tells us, that *it was ſituated over againſt Babylon*; and, that the *Pyramids could be ſeen diſtinctly from Babylon*. That *Kairo* takes up the ſite of the ancient *Babylon*, (contrary to the ſentiments of this author,) wants no other proof, than what we have recorded of it in *Ptolemy*[1]: where he tells us, that the *Amnis Trajanus ran through Babylon in its courſe to Heroopolis and the Red-ſea*. Now it is agreed among all geographers, that this *amnis Trajanus* is the ſame *Khalis* or *channel* (for there is no other) which makes one of the ſtreets of *Kairo* in the ſpring, but, upon cutting down a bank at the head of it, in the ſummer, receives the water of the *Nile*, and lodges it afterwards in the *Birque el Hadge*, as will be further taken notice of. And beſides, from almoſt every part of *Kairo*, and eſpecially from the caſtle, (which was formerly the whole or the greateſt part of the ancient *Babylon*[2],) we have a diſtinct view of the *Pyramids* of *Geeza*, but of no others. Theſe τηλαυγῶς ἀφορῶνται, *are diſtinctly ſeen*, as *Strabo* expreſſes himſelf: and, in going the neareſt way to them, we ferry over to *Geeza*, which is likewiſe ἐν τῇ περαίᾳ, *on the oppoſite ſhore*; as *Memphis* is deſcribed to have been. But none of theſe remarkable circumſtances agree with *Metraheny*; which, by lying ſeveral miles higher up the ſtream, can have no ſuch oppoſite ſituation.

Memphis *ſituated, as* Geeza *is, in the narroweſt part of* Egypt.

Another argument, why *Memphis* may be placed at *Geeza*, rather than higher up the river, is the deſcription that is given of it by *Herodotus*. *It was*, ſays he, *ſituated* ἐν τῷ στενῷ τῆς Αἰγύπτου, *in the ſtraights*, or narroweſt part *of Egypt*; as *Geeza* certainly is. For over againſt it, on the *Aſiatic* or *Arabian* ſhore, is the riſing ground and the mountains upon which *Babylon* and its ſuburbs were founded; and on the other ſide, are the *Libyan* mountains and the *Pyramids*. The *Nile*

[9] Ἐσῶσι δ' ὑπὲρ λόφου τοῦ αὐτοῦ ἀμφότεραι Πυραμίδες, μάλιστα εἰς ἑκατὸν πόδας ὑψηλαί. Id. p. 157.

[1] Διὰ τῆς (Ἡρώων πόλεως) ἡ Βαβυλῶνος πόλεως, Τραϊανὸς πόταμος ῥεῖ. *Ptolem.* l. iv. p. 263. [2] Vid. ſupra, p. 295.

took up a great part of this intermediate ſpace; and that ſmall diſtrict of land, which we now ſee lying betwixt the ſuppoſed ſite of the ancient *Memphis* and the *Libyan* mountains, was formerly the *Acheruſian lake*. So that very little, if any portion at all, of this narrow part of *Egypt*, was capable of cultivation.

At the inundation, they ſailed along the ſide of the pyramids.

Herodotus [3] has furniſhed us with another expreſſion, which may perhaps further illuſtrate this matter. *At the time of the inundation*, ſays he, *they do not ſail from Naucratis to Memphis, by the common channel of the river*, viz. *by Cercaſora and the point of the Delta, but over the plain* along the ſide (παρ' αὐτὰς πυραμίδας) of the pyramids. For as the main ſtream muſt be then exceedingly rapid and violent, it would render the navigation that way to *Memphis*, very long and tedious; whereas, by taking the advantage of the inundation, and ſailing, upon ſmoother water, under the *Libyan* mountains, they would arrive, with greater eaſe, on the backſide of the city, παρ' αὐλὰς πυραμίδας, *over-againſt*, or *along the ſide of, the pyramids*. An expreſſion which may likewiſe account for the ſituation that *Pliny* gives them, betwixt *Memphis* and the *Delta:* inaſmuch as at this time, and under theſe circumſtances, they were, in fact, ſituated between thoſe places.

The pyramids *of* Geeza *and the* pyramids *of* Memphis *the ſame.*

And that theſe *pyramids*, the pyramids of *Geeza*, as they are commonly called, are the *Memphitic pyramids*, ſo famous in antiquity, the ſame that are meant all along by the ancient authors I have quoted, will appear manifeſt from their reſpective deſcriptions of them. For, in the firſt place, they are always taken notice of, together with *Memphis:* the ancient deſcriptions of them likewiſe, both with regard to their number, their dimenſions, &c. agree with the modern; which is a further proof. Thus *Herodotus* tells us, (*Eut.* p. 155.) that *they were three in number; that the largeſt had ſeveral ſubterraneous chambers in it; that the next in bigneſs had none; and that the ſmalleſt was covered with Ethiopic marble.* This marble *Diodorus Siculus* (l. i. p. 64.) further obſerves, *to be like the Thebaic*, as the *Ethiopic* actually is. *Strabo* (p. 555.) gives us the ſame number of pyramids, and the like circumſtances with regard to their magnitudes: *Here*, ſays he, *are ſeveral pyramids, whereof three are very remarkable.* He mentions the entrance likewiſe into the greateſt; and that the ſmalleſt was part of it covered with black marble. The great *pyramid* is further ſpecified by *the many knobs of petrified lentils*, as he calls them, *which lay ſcattered along the ſide of it; and are no where elſe to be ſeen* [4]. *Pliny* [5] ob-

[3] *Herod. Eut.* p. 140. Ed. Steph.

[4] Vid. Part ii. § 2. *Of the Pyramids.*

[5] *Plin.* l. xxxvi. cap. 12.

ſerves

IV

To face p. 301.

III See p. 301.

According to the Book of TRAV. A.A.A. is the Situation of Jibbel Attackah. C.C. of Gewoubee. B. of Pihahiroth or Clyſma. D. The Paſſage through the Red Sea. E.E. The Shore of the Red Sea.

See p. 309, 311.

Auſpicijs eximij Juvenis THOMÆ REEVE, Armigeri, Aulæ Sti Edmundi, Superioris Ordinis Commensalis.

ſerves the ſame number of pyramids, and that *they were very conſpicuous* (as they and no others remarkably are) *to thoſe who ſail upon the Nile*;—that *the ſmalleſt is covered with Ethiopic marble*; and what will identify them beyond diſpute;—that *the Sphinx* (and there was no other) *lay before them.*

There are ſeveral other *pyramids* indeed, to the ſouthward of theſe, in the *Libyan* deſerts; ſome of which are of equal dimenſions, and not inferior, in their ſtructure and materials, to thoſe of *Geeza*. But none of them have been ſo particularly taken notice of; or even taken notice of at all, ſo as to interfere in this diſpute. As theſe therefore, which I have mentioned, can be no other than the *pyramids* of *Memphis*, it is very reaſonable to conclude, that the city itſelf, from whence they were denominated, could not lye at any diſtance from them, but ſhould rather be in their very neigbourhood, or where we now find the village of *Geeza*.

The other pyramids of Egypt little taken notice of by the ancients.

Herodotus [6], in his deſcription of *Memphis*, tells us that *Menes* cauſed a lake to be made on the N. and W. ſides of *Memphis*; and founded the magnificent temple of *Vulcan*: and again [7], that *Myris*, one of his ſucceſſors, built the portico of *Vulcan's* temple; and cauſed a lake to be made with *pyramids*: which was afterwards called the lake of *Myris*. This, ſome learned gentlemen of my acquaintance, ſuppoſe to be the ſame that was begun by *Menes*; and conſequently, that *Memphis* muſt be ſituated near the lake *Myris*. They argue further, that this lake is called at preſent the lake of *Charon*, who ferried the dead bodies over it from *Memphis* to the *plain* of the *mummies*, or the *Elyſian fields*, as this ſtory was improved by *Orpheus* and the *Grecian* mythologiſts.

Memphis *not ſituated near the lake of* Myris.

As for the ſtory of *Charon* and the *Elyſian fields*, it is too full of fable and allegory to build thereupon any geographical *data*. Neither does it appear, that the lakes made by *Menes* and *Myris* are the ſame; on the contrary, they were certainly very different. For the latter was far enough removed from *Memphis*; being, according to *Pliny* [8], at LXXII. M. diſtance. And moreover, it was of ſuch a prodigious circuit and extent, that all the correſpondent part of *Egypt*, which lies bounded by the *Arabian* and *Libyan* mountains, was an inſignificant ſpot in compariſon of it. And further, the lake of *Myris* [9] lay alto-

The lakes made by Menes *and* Myris *were not the ſame.*

[6] *Herod.* Eut. p. 140-1. Ed. Steph. [7] *Id. ibid.* p. 142.

[8] Inter Arſinoiten autem ac Memphiten lacus fuit circuitu CCL M. P. aut, ut Mutianus tradit CCCC M. P. & altitudinis quinquaginta paſſuum, manu factus a rege qui fecerat, Mœridis appellatur. Inde LXXII. M. P. abeſt Memphis, quondam arx Ægypti regum. *Plin.* l. v. c. 9. Vid. *Diod. Sic. Bibl.* l. i. in fine.

[9] Vid. the *Chryſanthine map* III.

gether

The western lake of Memphis, *and not the lake of* Myris, *was the lake of* Charon.

gether to the westward; παρὰ τὸ ὄρος τὸ ὑπὲρ Μέμφιος, *Herod.* (Eut. p. 168.) i. e. *on the other side of the mountain, under which Memphis was situated*; and therefore could have no communication at all with it. Whereas one of the lakes, made by *Menes*, was to the northward of that city; as the other, the *Acherusia*, as I take it to be, of *Diodorus*[1], lay to the westward, under the eastern brow of the same mountain. And as this lake might be continued all along the side of these mountains, from the *pyramids*, even to the very neighbourhood of *Saccara*; (several other places, no doubt, of *sepulture* besides the *pyramids* intervening) it will thereby much better accord with the history of *Charon* and his ferrying dead bodies, from *Memphis* over the *Acherusia*, to the *pyramids*, or to the plains of the *mummies*, or *Elysian fields*, than the remote and extensive lake of *Myris*.

The reason why we have no remains of the ancient Memphis.

We may observe further, and it will point out to us, perhaps, the reason, why we find no remains of the ancient *Memphis*; that the situation of it was very low, even in the very bed of the old river. For *Herodotus*[2] acquaints us, *that the river ran formerly along the side of the sandy hills of* Libya; *but that this old channel was dried up*, by bending off the river with a rampart, ἀγκῶνα προσχώσαντα, *a hundred furlongs higher up the stream* (or, to the southward, according to the parallel account in *Diodorus Siculus*[3]) *and thereby making it flow in a new channel, more at equal distances*, (where it was turned off) *betwixt the* (Libyan *and* Arabian) *mountains. This bending of the* Nile, *where the river is forced to flow, is kept up*, says he, *and repaired every year, with strong ramparts, by the* Persians; *for if it was suffered to be broken down, all* Memphis *would be in danger* κατακλυσθῆναι *of being swallowed up by the stream.* In this manner *Menes* is said ἀπογεφυρῶσαι τὴν Μέμφιν, or *to have made land*, χέρσον, *of what was before water*; or *to have dried up, so as to pass over dry-shod, that spot of ground upon which* Memphis *was built.* Or perhaps, ἀπογεφυρῶσαι may have a contrary meaning to γεφυρῶσαι, (as, among other compound words ἀποθεμελιόω is contrary to θεμελιόω) and may here signify the same as ποιῆσαι μὴ γεφυρωθῇ ἡ Μέμφις, i. e. *to contrive it so that* Memphis *should not be raised upon arches.* Because *junxisse pontibus Memphin*, as ἀπογεφυρῶσαι is rendered in the *Latin* version of *Valla*, conveys no proper idea of this undertaking; and *aggessisse Memphin*, as it is in the margin, (though it be agreeable indeed to the alterations that have been made in some

The meaning of ἀπογεφυρῶσαι τὴν Μέμφιν.

[1] Λειμῶνα δὲ νομίζειν καὶ τὴν μυθολογουμένην οἴκησιν τῶν μετηλλαχότων τὸν παρὰ τὴν λίμνην τόπον τὴν καλουμένην μὲν ΑΧΕΡΟΥΣΙΑΝ, πλησίον δὲ οὖσαν τῆς Μέμφιος, ὄντων περὶ αὐτὴν λειμώνων καλλίστων, ἑλῶν, καὶ λωτοῦ καὶ καλάμου. p. 61.

[2] Vid. supra, p. 300. not. 3.

[3] *Diod. Sic. Bibl.* l. i. p. 46.

other

other cities, as will be hereafter mentioned,) could not here be a matter of fact.

For *Memphis*, at this time, down to the age of *Herodotus*, had no higher ſituation, than the ancient bed of the river: and we may preſume, that it continued the ſame, at leaſt the greateſt part of it [4], in after ages: it's ſafety and preſervation depending all along upon the keeping up theſe mounds and ramparts, which fortified it againſt the incroachments of the *Nile*. But after *Alexandria* was built and became the chief *mart* for trade and navigation, and alſo the abode of the *Egyptian kings*; *Memphis*, by loſing, in this manner, the reſidence of the court, together with it's former commerce, would, in proportion, loſe the many families and the numerous retinue, that, in one relation or other, depended upon them both.

The original ſituation of Memphis *very low and defended with ramparts.*

As the inhabitants therefore, in a few ages, for want of trade and employment, might be ſo gradually reduced and impoveriſhed, as to be incapacitated, either to undergo the fatigue or the expence of keeping up theſe mounds and ramparts; it is very probable, that, at length, they might be neceſſitated intirely to abandon both them and their city. *Memphis* being thus left, without an inhabitant, naked and open, to the ravages and devaſtations of the *Nile*; and the danger to which it was expoſed, for want of theſe ramparts, *of being ſwallowed up*, καλυσθῆναι, beginning now to take place; the period of time could not be long, before the whole face and appearance of it would be ſo greatly changed and altered, as not to afford the leaſt trace or footſtep of its ancient grandeur and magnificence, or even that ſuch a city had ever been.

When the ramparts were neglected, the city would be deſtroyed.

Neither am I ſingular in this opinion: it is confirmed by the learned author of the *deſcription of the Eaſt*. *It is very extraordinary*, ſays he, (p. 39.) *that the ſituation of* Memphis *ſhould not be well known, which was ſo great and famous a city, and for ſo long a time, the capital of Egypt; but as many of the beſt materials of it might be carried to* Alexandria; *and afterwards when ſuch large cities were built near it, as* Cairo *and thoſe about it, it is no wonder that all the materials ſhould be carried away to places ſo near, and ſo well frequented; and the city being in this manner levelled, and the* Nile *overflowing the old ruins, it may eaſily be accounted for, how every thing has been buried or covered over, as if no ſuch place*

This atteſted by other authors.

[4] *Strabo* indeed, by acquainting us that the royal edifices were built upon a riſing ground, ſeems to inſinuate, that the city itſelf was low. Ἴδρυται βασιλεῖα, ἃ νῦν μὲν καλέσασθαι ἔστιν ἔρημα, ἐφ' ὕψους καθήκοντα μέχρι τῆς κάτω τῆς πόλεως ἐδάφους. p. 555. Ed. *Caſaub.*

had

had ever been. Mr. *Maillet* likewiſe, in his deſcription of *Egypt*, (p. 275.) is of the ſame opinion, though more conciſe: *De cette* Memphis, *autrefois ſi fameuſe & ſi conſiderable, à peine reſtet-il aſſez de traces, pour pouvoir nous aſſurer de ſa veritable ſituation.*

CHAP. V.

Of the land of Goſhen; *of* Arabia Petræa; *and of the encampments of the* Iſraelites *therein.*

Memphis *the ſeat of the* Egyptian kings.

AFTER having thus adjuſted the ancient ſituation of *Memphis*, let us return to the oppoſite ſhore, to the *Arabian* banks of the *Nile*, at *Kairo* and *Mattarea*; which, in the ſacred geography, were, a part of the *land of Goſhen* or of *Rameſes*. For *Joſeph*, when he invited his father and brethren into *Egypt*, tells them, (*Gen.* xlv. 10.) that they *ſhould dwell in the* land of Goſhen, *and be near him. Goſhen* then muſt, at that time, have been adjacent to the ſeat of the *Egyptian* kings. Now (to omit other arguments that might be drawn from the hiſtory and ſucceſſion of the *Egyptian dynaſties*) as *a weſt wind* (Exod. x. 19.) *took away the locuſts, and caſt them into the Red ſea*, this *metropolis* may be much better fixed at *Memphis*, whoſe ſituation exactly anſwers to this circumſtance, than at *Zoan* or *Manſourah*, as it is now called, a city of the *Tanitic Nomos*, twenty leagues to the northward; and conſequently, where the ſame wind could not have blown them into the *Red ſea*, but into the *Mediterranean*, or elſe into the land of the *Philiſtines*, which lies directly to the eaſtward of it. For the land of *Zoan*, (Pſ. lxxviii. 12, 43.) where the *fearful things* are ſaid *to have been done*, was probably another appellation only for the land of *Egypt*, or the land of *Ham*, by taking (as uſual in poetical compoſitions) a part for the whole, or, in the inſtance before us, one of the moſt remarkable places of *Egypt*, ſuch as *Zoan* might be in the time of *David*, or the compoſer of that *Pſalm*, for the whole country.

And indeed, provided *Zoan* had been then, as it might have been afterwards the *metropolis*, or the ſeat of the *Pharaohs*, towards which, *Jacob* and his children were to direct their marches, how comes it, that at their firſt ſetting out, *they took their journey* from the vale of *Hebron*, (*Gen.* xxxvii. 14. xlvi. 1.) to *Beerſheba?* which would lay too much

much upon the left hand; and not towards *Gaza*, and the *ſea-coaſt* of the *Philiſtines*, which would have certainly been the neareſt, and the moſt direct road to *Zoan?* Whence comes it likewiſe, that, when *Jacob* was carried out of *Goſhen* to be buried at *Hebron*, the proceſſion *came to the threſhing-floor of Atad* [1], *which was beyond* (i. e. to the weſtward [2] of the) *Jordan? Gen.* l. 10. For though indeed we cannot well account for this laſt geographical circumſtance, yet it ſhews that the road, (perhaps the ſame, for the moſt part, that *Jacob* took in going to *Egypt*,) lay at a great diſtance from the *ſea-coaſt* of the *Philiſtines*; and conſequently that they could not have ſet out from *Zoan*.

Zoan *lay at a diſtance from the road that* Jacob *took into* Egypt.

Nay further, provided *Jacob* had directed his journey from *Beerſheba*, which was his ſecond ſtation, towards that part or city of *Egypt*, which was called *Zoan*, it will be difficult to account for the tradition that is recorded by the LXXII [3] and *Joſephus* [4], that his ſon *Joſeph* met him at *Heroopolis*, or *Adjeroute* according to the preſent name. For this being a city of the *Heliopolitan Nomos* [5], bordering upon the *Red-ſea*, it would lye directly in the road from *Beerſheba* to *Memphis*, but quite out of the road from *Beerſheba* to *Zoan*. The LXXII likewiſe inſtruct us, in the text above quoted, that *Heroopolis* was a city of the *land of Rameſes*. *The land of Rameſes*, therefore, or *Goſhen*, could be no other than the *Heliopolitan Nomos*, taking in that part of *Arabia*,

The Heliopolitan Nomos *the ſame with* Rameſes.

[1] If this *Atad* is the ſame that is laid down by St. *Jerom* and *Euſebius*, at III M. from *Jericho*, and II from the *Jordan*, it muſt be ſituated XXX M. at leaſt to the N. E. of *Hebron*; and conſequently would be ſo much out of the way, in travelling thither from *Egypt*. (*Gen.* xiv. 2. and xix. 22.)

[2] *Beyond* בעבר *Jordan*, is taken at large for the country that lies both to the weſt, and to the eaſt of *Jordan*, (*Deut.* iii. 8. and 20.) without being diſtinguiſhed, by *beyond Jordan eaſtward*, as in *Joſh.* xiii. 8. or *beyond Jordan weſtward*, or *towards the ſea*, as in *Joſh.* xii. 7. And in this paſſage, it may perhaps be more circumſtantiated, and ſignify the *threſhing-floor that lay near*, or *at the ford of the Jordan*; we will ſuppoſe a little below, or to the ſouthward of the plain, where *Gilgal* was afterwards. But without contracting the *Dead-ſea*, and making the channel of the *Jordan* extend itſelf much further towards *Beerſheba*, than it does at preſent, or very probably ever did after the deſtruction of *Sodom*, nothing of this kind can be well ſuppoſed; as this *ford* would ſtill lye a great way beyond *Hebron*, out of the direct courſe of their journey, from which they cannot well be preſumed to have deviated.

[3] Τὸν δὴ Ἰάκωβον ἀπέστειλεν ἔμπροσθεν αὐτοῦ πρὸς Ιωσὴφ συναντήσαι αὐτῷ καθ' Ηρώων πόλιν, εἰς γῆν Ραμεσσῆ. Gen. xlvi. 28.

[4] Μαθὼν δὲ Ἰώσηπος ὡδεγενόμενον τὸν πατέρα,—ὑπαντήσόμενος ἔξεισι κατὰ Ηρώων πόλιν αὐτῷ συνέβαλεν. *Joſ. Antiq.* l. ii. cap. 7.

[5] ΗΛΙΟΥΠΟΛΙΤΗΣ ΝΟΜΟΣ, καὶ μητρόπολις ἡλίου ξβ μ. λ ς

Καὶ ἐν μεσογείῳ Αραβίας καὶ Αφροδίτοπόλεως

Βαβυλὼν	ξβ δ. λ.	Ηλιούπολις	ξβ μ. κθ μγ
Ηρώων πόλις	ξγ. λ.	Δι' ἧς καὶ Βαβυλῶνος πόλεως, Τραϊανὸς πόλεμος ῥεῖ.	

Ptol. Geogr. l. iv. cap. 5.

which lay bounded, near *Heliopolis*, by the *Nile*; and, near *Heroopolis*, by the correspondent part of the *Red sea*. For the Scriptures call *Goshen*, (*Gen.* xlvii. 6.) *the best of the land:* and again, ver. 11. *Joseph gave his father and his brethren, a possession in the* land of Egypt, *in the best of the land, in the* land of Rameses; i. e. *Goshen* was the best and the most fertil portion of that jurisdiction. This then could be no other than what lay within two or three leagues at the most from the *Nile:* because the rest of the *Egyptian Arabia*, which reaches beyond the influence of this river to the eastward, is a barren, inhospitable wilderness.

The land of Goshen, *in the neighbourhood of* Heliopolis.

Josephus [6] gives us a further proof, that the *land of Goshen* was thus situated, by placing the first settlement of the *Hebrews* at *Heliopolis*, or *On* [7], as the Scriptures call it: which may be a testimony likewise, that *Heliopolis* could not have been then the seat of *Pharoah*; because the *Hebrews* were not to be *with*, but only to be *near*, him. The ruins of this city, where there is a fountain of excellent water, are known at present by the name of *Matta-reah* [8]; lying about three miles to the eastward of the *Nile*, and five to the N. E. of *Kairo*. But, in proportion as the *Hebrews* increased, it may be presumed, that they spread themselves further along the *Arabian* banks of the *Nile*, towards *Bishbesh* (the ancient *Bubastis*,) and towards *Kairo*, the ancient *Latopolis*, or *Babylon* [9]. The *Israelites* likewise are said (*Ex.* i. 11.) *to have built Pithom*, the *Patumus* probably, which *Herodotus* [1] places near *Bubastis*; and, in consequence thereof, they may be supposed, either to have inhabited, or to have lived at least, in the neighbourhood of it. And as their departure, according to the tradition preserved by *Josephus*, was from *Latopolis*, or *Babylon*, it may be further presumed, that this was a portion likewise of the land, which *Pharaoh* gave them to inhabit. *Goshen* then was that part of the *Heliopolitan Nomos*, or of the *land of Rameses*, which lay in the neighbourhood of *Kairo*, *Mat-*

The Hebrews *first settled at* Heliopolis.

Their departure was from Kairo.

[6] Φαραὼ—συνεχώρησεν αὐτῷ (Ιακὼβ) ζῆν μετὰ τῶν τέκνων ἐν ΗΛΙΟΥΠΟΛΕΙ. *Jos. Antiq.* l. ii. cap. 4.

[7] *On* (*the priest of*) *Gen.* xli. 46. and 50, is rendered by the LXXII Ηλιουπόλεως.

[8] The *Nubian* geographer seems to call the city, from the fountain, *Ain (Semes) Shims, The fountain of the sun*, placing it to the northward of *Fostat*, or old *Kairo*: *Ad plagam* Fostat *septentrionalem urbs* Ain Semes *dicta*, p. 98. Quod etiam *Constantinus* L'Empereur ad *Tudelensem*, p. 224. confirmat, quia peregrinator ille locum, quem *Israelitæ* habitandum acceperint, vocet עין אלשמס *fontem Solis. Cellar. Geogr. Antiq.* l. iv. p. 35. What the prophet *Jeremiah* (xliii. 13.) calls (בית שמש) *Bethshemesh*, i. e. *The house of the sun*, the LXXII interpret Ηλιούπολις.

[9] Vid. *Jac. de Vitriaco*, l. iii. *Hist. Orient.* c. 7. *Jos. Antiq. Jud.* l. ii. c. 5.

[1] Ηκται δὲ κατύπερθε ὀλίγον Βουβάστιος πόλιος παρὰ Πάτουμον τὴν Αραβίην πόλιν. *Herod.* Eut. § 158.

ta-reah

ta-reah, and *Bishbesh*; as *Kairo* itself might be *Rameses*, the *capital* of the district of that name, where the *Israelites* had their *rendezvous*, before they departed out of *Egypt*.

Two roads to the Red sea.

Now, *lest peradventure* (Ex. xiii. 17.) *when the Hebrews saw war, they should repent and return to Egypt, God did not lead them through the way of the* land of the Philistines, (*viz.* either by *Heroopolis* in the midland road, or by *Bishbesh*, *Tineh*, and, so along the *sea-coast*, towards *Gaza* and *Ascalon*) *although that was the nearest: but he led them* ABOUT, *through the way of the wilderness of the Red-sea.* There are accordingly two roads, through which the *Israelites* might have been conducted from *Kairo* to *Pihahhiroth*, on the banks of the *Red-sea*. One of them lies through the valleys, as they are now called, of *Jendily*, *Rumeleah*, and *Baideah*, bounded on each side by the mountains of the lower *Thebais*. The other lyes higher, having the northern range of these mountains (the mountains of *Mocattee*,) running parallel with it on the right hand, and the desert of the *Egyptian Arabia*, which lyes all the way open to the *land of the Philistines* on the left. About the middle of this range, we may turn short upon our right hand into the valley of *Badeah*, through a remarkable breach, or discontinuation, in which we afterwards continued, to the very bank of the *Red-sea*. *Suez*, a small city upon the northern point of it, at the distance of thirty hours, or XC *Roman* miles from *Kairo*, lyes a little to the northward of the promontory that is formed by this same range of mountains, called at present *Attackah*; as that which bounds the valley of *Baideah* to the southward, is called *Gewoubee*.

The Israelites *took the road of* Baideah.

This road then, through the valley of *Baideah*, which is some hours longer than the other open road, which leads us directly from *Kairo* to *Suez*, was, in all probability, the very road which the *Israelites* took to *Pihahhiroth*, on the banks of the *Red-sea*. *Josephus* then [2], and other authors who copy after him, seem to be too hasty in making the *Israelites* perform this journey of XC or C *Roman* miles, in three days: by reckoning each of the stations that are recorded for one day. Whereas the Scriptures are altogether silent, with regard to the time or distance; recording the stations only. The fatigue likewise would have been abundantly too great, for a nation on foot, incumbered with their *dough*, their *kneading troughs*, their *little children* and *cattle*, to walk, at the rate of XXX *Roman* miles a day. Another instance of the same kind occurs, *Ex.* xxxiii. 9. where *Elim* is mentioned as the next station after *Marah*, though *Elim* and *Marah* are

[2] Συντόμως δὲ ποιούμενοι τὴν ἄφοδον εἰς Βεελσεφῶντα χωρίον τριταῖοι παραγίνονται τῆς Ἐρυθρᾶς θαλάσσης. *Jos. Antiq.* l. ii. cap. 5. in fine.

further distant from each other, than *Kairo* is from the *Red-sea*. Several intermediate stations, therefore, as well here as in other places, were omitted; the *holy penman* contenting himself with laying down, such only, as were the most remarkable, or attended with some notable transaction.

Succoth. *Succoth* then, the first station [3] from *Rameses*, signifying only a *place of tents*, may have no fixed situation; being, probably, nothing more than some considerable *Dou-war* of the *Ishmaelites* or *Arabs*, such as we still meet with, at XV or XX miles distance from *Kairo*, in the road to the *Red-sea*. The *rendezvous* of the *caravan*, which conducted us to *Suez*, was at one of these *Dou-wars*; at the same time we saw another, at about VI miles distance, under the mountains of *Moc-catte*; or in the very same direction, which the *Israelites* may be supposed to have taken, in their marches from *Goshen* towards the *Red-sea*.

Etham, *fifty miles distant from* Rameses *to the east.* Neither is the geography of *Etham*, the second station, much better circumstantiated. If it appertained to the wilderness [4] of the same name, which spread itself round the *Heroopolitic* gulph [5], and made afterwards the *Saracene* of the old geography; then, the edge of it may be well taken for the most advanced part of it towards *Egypt*, and consequently to lye contiguous with some portion or other of the mountains of the *lower Thebais* or of *Mocatte*, or *Mocattem*, as they are called, near *Kairo*. The particular spot of it likewise may probably be determined, by what is recorded afterwards of the *Israelites*, (Ex. xiv. 2.) that upon their removing from the edge of *this* wilderness, they are immediately ordered *to turn* [6] (to the S. E.) from the course, as we may imagine, of their former marches, which was hitherto in an easterly direction; *and to encamp before Pihahhiroth*. As *Pihahhiroth* therefore must lye to the right hand of the wilderness of *Etham*, within, or on the other side of, these mountains; so the second station, or the particular portion of this wilderness of *Etham*, may be fixed about L miles from *Kairo*, at, or near the breach which I have mentioned.

The valley betwixt Etham *and* Pihahhiroth. That the *Israelites*, before they turned towards *Pihahhiroth*, had traveled in an open country, (the same way perhaps, which their forefathers had taken in coming into *Egypt*,) appears to be further

[3] *And the children of Israel removed from Rameses, and pitched in Succoth.* Numb. xxxiii. 5.

[4] *And they departed from Succoth, and pitched in Etham*, which is in the edge of the wilderness. *Numb.* xxxiii. 6. *Exod.* xiii. 20.

[5] *They went three days journey in the wilderness of Etham, and pitched in Marah.* Numb. xxxiii. 8.

[6] Μωσῆς, ὁ λαὸν ἐξαγαγών, ὑποπλεύσας ἐπιδιώξαν τὰς Αἰγυπτίους, τῷ ὀλίγῳ καὶ σώφρονι ὑπολιπὼν ὁδὸν, ἐπὶ τὴν ἔρημον ἐτρέπετο. *Clem. Alex. Strom.* p. 417. Edit. *Pott.*

illuſtrated from the following circumſtance: *viz.* that, upon their being ordered to remove from the edge of the wilderneſs, and to *encamp before Pihahhiroth*, it immediately follows, that *Pharaoh* ſhould then ſay, *they are intangled in the land, the wilderneſs* (betwixt the mountains, we may ſuppoſe, of *Gewoubee* and *Attackah*) *have ſhut them in*, (*Exod.* xiv. 3.) or (as it is in the original,) סגר (*Seggar,*) *viam illis clauſit*, as that word is explained by *Pagninus*. For, in theſe circumſtances, the *Egyptians* might well imagine, that the *Iſraelites* could have no poſſible way to eſcape; inaſmuch as the mountains of *Gewoubee* would ſtop their flight or progreſs to the ſouthward, as thoſe of *Attackah* would do the ſame, towards the *land of the Philiſtines*; the *Red-ſea*, likewiſe, lay before them to the eaſt; whilſt *Pharaoh* cloſed up the valley behind them, with his *chariots and horſemen*. This valley ends at the ſea, in a ſmall bay, made by the eaſtern extremities of the mountains, which I have been deſcribing: and is called *Tiah Beni Iſrael*, i. e. *The road of the Iſraelites*; from a tradition, that is ſtill kept up by the *Arabs*, of their having paſſed through it; as it is alſo called *Baideah* [7], from the *new* and unheard of *miracle*, that was wrought near it; by dividing the *Red-ſea*, and deſtroying therein, *Pharaoh, his chariots and his horſemen*.

Pihahhiroth.

The third notable encampment, then, of the *Iſraelites* was at this bay. It was to be *before* Pihahhiroth, *betwixt* Migdol *and the ſea*, *over againſt* Baal-tzephon, *Exod.* xiv. 2. And in *Numb.* xxxiii. 7, it was to be *before* Migdol; where the word לפני *liphne* (*before*, as we render it) being applied to *Pihahhiroth* and *Migdol*, may ſignify no more, than that they pitched within ſight of, or at a ſmall diſtance from, the one and the other of thoſe places. Whether *Baal-tzephon* then may have relation to the northern [8] ſituation of the place itſelf, or to ſome watch tower or *idol temple* that was erected upon it; we may probably take it for the eaſtern extremity of the mountains of *Suez*, or *Attackah*, the moſt conſpicuous of theſe deſerts; inaſmuch

Baal-tzephon.

[7] בדיע (ἀπὸ τῦ בדע novæ & mirabilis rei conditor.) Caſus novus & inauditus. *Gol.*

[8] צפון is rendered the *north*, *Exod.* xxvi. 20; *Joſh.* vii. 11. and in other places of Scripture. Accordingly *Baal-tzephon* may be interpreted, *the God* or *idol of the north*, in contradiſtinction perhaps to others of the lower *Thebais*, whoſe places of worſhip were to the S. or E. If *Tzephon* be related to צפה *to ſpy out* or *obſerve*, then *Baal-tzephon* will probably ſignify the *God of the watch-tower*, or *the guardian God*, ſuch as was the *Hermes* or *Terminus* of the *Romans*, the Ἑφορος Θεὸς of the *Greeks*, &c. *The worſhiping upon mountains* is mentioned, 1 *Kings* xiv. 23. *Jer.* ii. 20, &c. The *Perſians* worſhiped, ἐπὶ τὰ ὑψηλότατα τῶν ὀρέων ἀναβαίνοντες. *Herod.* Clio, § 131. Hebraice eſt, *Dominus Speculæ*, quod oſtendit loca illa edita fuiſſe & prærupta. *Menoch.* in loeum. Vid. *Seld. de Diis Syris*, cap. iii. ſynt. 1.

as

as it overlooks a great part of the lower *Thebais*, as well as the wilderneſs that reaches towards, or which rather makes part of, the *land of the Philiſtines*. *Migdol* then might lay to the ſouth, as *Baal-tzephon* did to the north of *Pihahhiroth*. For the marches of the *Iſraelites*, from the edge of the wilderneſs, being to the ſeaward, *i. e.* towards the S.E. their encampments *betwixt* Migdol *and the ſea*, or *before* Migdol, as it is otherwiſe noted, could not well have another ſituation.

Migdol.

Pihahhiroth, or *Hhiroth* rather, without regarding the *præfixt* part of it, may have a more general ſignification, and denote the valley, or that whole ſpace of ground, which extended itſelf from the edge of the wilderneſs of *Etham*, to the *Red-ſea*. For that particular part only, where the *Iſraelites* were ordered to encamp, appears to have been called *Pi-hahhiroth*, i. e. *the mouth of Hhiroth*. For when *Pharaoh* overtook them, it was with reſpect to his coming down upon them: *Ex.* xiv. 19. על פי החירת i. e. *beſides*, or *at the mouth*, or the moſt advanced part *of Hhiroth* to the eaſtward. Likewiſe in *Numb.* xxxiii. 7. where the *Iſraelites* are related to have encamped before *Migdol*, it follows ver. 8. that *they departed* מפני החירת *from before Hhiroth*, and not from *before Pihahhiroth*, as it is rendered in our tranſlation. And in this ſenſe it is taken by the LXXII, by *Euſebius*, and St. *Jerome*; the former interpreting *Pihahhiroth* by τὸ στόμα Εἰρὼθ, or *the mouth of Eiroth*, or *Iroth*, as St. *Jerome* writes it. For פי, as *Ben Ezra* criticiſes upon the word, relates to what lies before us; being called in the *Targum*, פום *Phoum*, or פומי *Phoumi*; as *Hhiroth* is called הירתא *Hhirata*. Each of them therefore, is to be conſidered as a diſtinct term and appellation.

Pihahhiroth, *or the mouth of* Hhiroth.

If we take *Hhiroth* then for an appellative, it may have two ſignifications. It has been already obſerved, that this valley is cloſely confined betwixt two rugged chains of mountains. By deducing *Hhiroth* therefore, from חר *Hhor*, or חור *Hhour*, i. e. a *hole* or *gullet*, (as the *Samaritan* and *Syriac* copies underſtand it) it may, by a latitude very common in theſe caſes, be rendered a narrow *defilé*, road, or paſſage, ſuch as the valley of *Baideah* has been deſcribed. *Pihahhiroth*, therefore, upon this ſuppoſition, will be the ſame, as the mouth or the moſt advanced part of this valley, to the eaſtward, towards the *Red-ſea*. But as the *Iſraelites* were properly delivered at this place, from their captivity and fear of the *Egyptians*, *Exod.* xiv. 13. we may rather ſuppoſe, that *Hhiroth* denotes the place where they were reſtored to their *liberty*; as חרר *Hhorar* and חירות *Hhiroth* are words of the like import in the *Chaldee*. In *Raſhi's* commentary we have a further

Hhiroth *denoted a narrow* defilé.

Or the place of deliverance.

further confirmation of this interpretation. *Pihahhiroth*, ſays he, *is ſo called, becauſe the children of Iſrael were made* בני חרים *Beni Hhorim*, freemen *at that place*. In the *Targum* likewiſe בן-חרין *Ben Hhorin* is uſed to explain חפשי *Hhaphſee*, *Exod.* xxi. 2, and 5. a word which denotes *liberty* and *freedom* in theſe, and other parts of Scripture. And it may be further urged in favour as well of this explication as of the tradition ſtill preſerved, of the *Iſraelites* having paſſed through this valley, that the eaſtern extremity of the mountain, which I ſuppoſe to be *Baal-tzephon*, is called, even to this day, by the inhabitants of theſe deſerts, *Jibbel Attakah*, or *The mountain of deliverance*: which appellation, together with thoſe of *Baideah* and *Tiah beni Iſrael*, could never have been given or impoſed upon theſe inhabitants at firſt, or preſerved by them afterwards, without ſome faithful tradition, that ſuch places had once been the actual ſcene of theſe remarkable tranſactions. The ſea likewiſe of *Kolzum*, i. e. *deſtruction*, as the correſpondent part of the *Red-ſea* is called in the *Arabian* geography, is a further confirmation of this tradition. Moreover, the *Ichthyophagi*, who lived in this very neighbourhood, are reported by *Diodorus Siculus*, (l. iii. p. 122.) to have preſerved the like traditionary account, from their forefathers, of this miraculous diviſion of the *Red-ſea*.

There are likewiſe other circumſtances to prove, that the *Iſraelites* took their departure from this valley, in their paſſage through the *Red-ſea*. For, it could not have been to the northward of the mountains of *Attackah*, or in the higher road which I have taken notice of; becauſe, as this lyes for the moſt part upon a level, the *Iſraelites* could not have been here, as we find they were, ſhut in and intangled. Neither could it have been on the other ſide, *viz.* to the S. of the mountains of *Gewouby*, for then (beſides the inſuperable difficulties which the *Iſraelites* would have met with in climbing over them, the ſame likewiſe that the *Egyptians* would have had in purſuing them) the oppoſite ſhore could not have been the deſert of *Shur*, where the *Iſraelites* landed, *Exod.* xv. 22. but it would have been the deſert of *Marah*, that lay a great way beyond it. What is now called *Corondel*, might probably be the ſouthern portion of the deſert of *Marah*, the ſhore of the *Red-ſea*, from *Suez* hitherto, having continued to be low and ſandy. But from *Corondel* to the port of *Tor* the ſhore is, for the moſt part, rocky and mountainous, in the ſame manner with the *Egyptian* coaſt that lyes oppoſite to it; neither the one nor the other of them affording any convenient place, either for the departure of a multitude from the one ſhore, or the reception of it upon the other.

The Iſraelites *paſſed through this valley.*

And

And beſides, from *Corondel* [9] to *Tor*, the channel of the *Red-ſea* which from *Suez* to *Sdur* is not above IX or X M. broad, begins here to be ſo many leagues; too great a ſpace certainly, for the *Iſraelites*, in the manner they were encumbered, to paſs over in one night. At *Tor*, the *Arabian* ſhore begins to wind itſelf round about *Ptolemy's* promontory of *Paran*, towards the gulph of *Eloth*; whilſt the *Egyptian* ſhore retires ſo far to the S. W. that it can ſcarce be perceived.

The Iſraelites did not land at Ain Mouſah.

As the *Iſraelites* then, for theſe reaſons, could not, according to the opinion of ſome authors, have landed either at *Corondel* or *Tor*; ſo neither could they have landed at *Ain el Mouſah*, according to the conjectures of others. For if the paſſage of the *Iſraelites* had been ſo near the extremity of the *Red-ſea*, it may be preſumed, that the very encampments of *ſix hundred thouſand men, beſides children, and a mixed multitude*, which would amount to as many more, would have ſpread themſelves, even to the further, or the *Arabian* ſide of this narrow *iſthmus*; whereby the interpoſition of providence would not have been at all neceſſary. Becauſe, in this caſe, and in this ſituation, there could not have been room enough for *the waters*, after they were divided, to have *ſtood on a heap*, or to have *been a wall unto them, particularly on the left hand.* This moreover would not have been a diviſion, but a *receſs* only of the water to the ſouthward. *Pharaoh* likewiſe, by overtaking them, as they were encamped in this open ſituation by the ſea, would have eaſily ſurrounded them on all ſides. Whereas the contrary ſeems to be implied by the *pillar of the cloud*, *Exod.* xiv. 19, 20. which (divided or) *came between the camp of the Egyptians, and the camp of Iſrael*; and thereby left the *Iſraelites* (provided this cloud ſhould have been removed) in a ſituation only of being moleſted in the rear. For the narrow valley, which I have deſcribed, and which, we may preſume, was already occupied and filled up *behind* by the hoſt of *Egypt*, and *before* by the encampments of the *Iſraelites*, would not permit, or leave room for the *Egyptians* to approach them, either on the right hand or on the left. Beſides, if this paſſage was at *Ain Mouſa*, how can we account for that remarkable circumſtance, *Exod.* xv. 22. where it is ſaid, that *when Moſes brought Iſrael from the Red-ſea, they went out into* (or landed in) *the wilderneſs of Shur.* For *Shur*, a particular diſtrict of the wilderneſs of *Etham*, lies directly fronting the valley, from which I ſuppoſe they departed, but a great many miles to the ſouthward of *Ain Mouſa*. If they landed likewiſe at *Ain Mouſa*, where there are ſeveral fountains, there would

[9] *Ebn Said* (Cod. MS. *Seld.*) makes the ſea at *Corondel* to be ſeventy miles over, whereas it is little more than ſo many furlongs. Vid. Vol. iii. *Geogr. Vet. Min.*

have

have been no occaſion for the ſacred hiſtorian to have obſerved, at the ſame time, that the *Iſraelites*, after *they went out* from the ſea *into the wilderneſs of Shur*, *went three days in the wilderneſs* (always directing their marches towards *mount Sinai*) *and found no water*. For which reaſon *Marah* is recorded, ver. 23. to be the firſt place where they found water; as their wandering ſo far, before they found it, ſeems to make *Marah* alſo their firſt ſtation, after their paſſage through the *Red-ſea*. Moreover, the channel over-againſt *Ain Mouſa*, is not above three miles over; whereas that betwixt *Shur* or *Sedur* and *Jibbel Gewoubee* and *At-tackah*, is nine or ten, and therefore capacious enough, as the other would have been too ſmall, for drowning or *covering* therein (*Exod.* xv. 28.) *the chariots and horſemen, and all the hoſt of Pharaoh*. And therefore, by impartially weighing all theſe arguments together, this important point in the *ſacred geography* may, with more authority, be fixed at *Sedur*, over-againſt the valley of *Baideah*, than at *Tor*, *Corondel*, *Ain Mouſa*, or any other place.

Over-againſt *Jibbel At-tackah*, and the valley of *Baideah*, is the deſert, as it is called, of *Sdur*, the ſame with *Shur*, *Exod.* xv. 22. where the *Iſraelites* landed, after they had paſſed through the interjacent gulph of the *Red-ſea*. The ſituation of this gulph, which is the *Jam Suph* סוּף יָם, *The weedy ſea*, or *The tongue of the Egyptian ſea* in the Scripture language; the gulph of *Heroopolis* in the *Greek* and *Latin* geography; and the *Weſtern arm*, as the *Arabian* geographers call it, of the ſea of *Kolzum* [1], ſtretches itſelf nearly N. and S. and therefore lies very properly ſituated [2] to be traverſed by that *ſtrong eaſt wind* which was *ſent to divide it*, *Exod.* xiv. 21. The diviſion that was thus made in the channel; the *making the waters of it to ſtand on a heap*, (Pſ. lxxviii. 13.) *their being a wall to the Iſraelites on the right hand and on the left*; (*Exod.* xiv. 22.) beſides the twenty miles diſtance at leaſt, of this paſſage, from the extremity of the gulph, are circumſtances which ſufficiently vouch for the *miraculouſneſs* of it, and no leſs contradict all ſuch idle ſuppoſitions as pretend to account for it,

The deſert of Sdur *or* Shur.

[1] *Sues* vulgo non habet *Abulfeda*, ſed ejus loco *Alkolzum*: videntur tamen duo loca diſtincta: nam noſter *Kalkaſhandi* mox poſt *Sues* ponit *Alkolzum* ad meridiem ejuſdem *Sues* in litore *Ægyptiaco*: at vero *Mekriſi* expreſſe ait *Alkolzum* eſſe dirutum & loco ejus hodie *Sues* eſſe. V. c. *Joh. Gagn. Not. in Abulf. Geogr.* Ad oram extimam brachii orientalis maris *Alkolzum* ſita eſt *Ailah*, & ad oram extimam brachii occidentalis fuit urbs *Alkolzum*; utriuſque latitudines ferme eædem ſunt. Vid. *Abulf. Deſcript. maris Alkolzum.*—Haud procul ab *Alkolzum* eſt locus in mari ubi demerſus fuit *Faraone*. Id. *Alkolzum*, or *Kolzum* without the article, ſeems to have ſome affinity with *Cly ſma*, another name that this gulph was formerly known by. The ſame is laid down by *Philoſtorgius*, l. iii. cap. 6.

[2] Vid. *Golii not. in Alfarganum.*

from the nature and quality of tides, or from any ſuch extraordinary receſs of the ſea, as it ſeems to have been too raſhly compared to, by *Joſephus* [3].

The deſert of Marah *or* Corondel.

In travelling from *Sdur* towards *mount Sinai*, we come into the deſert, as it is ſtill called, of *Marah*, where the *Iſraelites* met with thoſe *bitter waters*, or *waters of Marah*, (*Exod.* xv. 23.) And as this circumſtance did not happen, 'till after they had *wandered three days in the wilderneſs*, we may probably fix theſe waters at *Corondel*, where there is ſtill a ſmall rill, which, unleſs it be diluted by the dews and rain, ſtill continues to be brackiſh. Near this place, the ſea forms itſelf into a large bay, called *Berk el Corondel* 4, i. e. *the lake of Corondel*; which is remarkable from a ſtrong current that ſets into it, from the northward, particularly at the receſs of the tide. The *Arabs*, agreeably to the interpretation of *Kolzum*, (their name for this ſea) preſerve a tradition, that a numerous hoſt was formerly drowned at this place; occaſioned, no doubt, by what is related, *Exod.* xiv. 30. that the *Iſraelites ſaw the Egyptians dead upon the ſea-ſhore*; i. e. all along, as we may preſume, from *Sdur* to *Corondel*; and at *Corondel* eſpecially, from the aſſiſtance and termination of the current, as it has been already mentioned.

Elim *and the* ſeventy palm trees.

There is nothing further remarkable, 'till we ſee the *Iſraelites* encamped at *Elim*, (*Exod.* xv. 27. *Numb.* xxxiii. 9.) upon the northern ſkirts of the deſert of *Sin*, two leagues from *Tor*, and near thirty from *Corondel*. I ſaw no more than nine of the *twelve wells* that are mentioned by *Moſes*; the other three being filled up by thoſe drifts of ſand, which are common in *Arabia*. Yet this loſs is amply made up by the great increaſe in the *palm trees*; the *ſeventy* having propagated themſelves into more than two thouſand. Under the ſhade of theſe trees, is *the Hammam Mouſa*, or *bath of Moſes*, particularly ſo called, which the inhabitants of *Tor* have in great eſteem and veneration; acquainting us, that it was here, where the houſhold of *Moſes* was encamped.

The deſert of Sin.

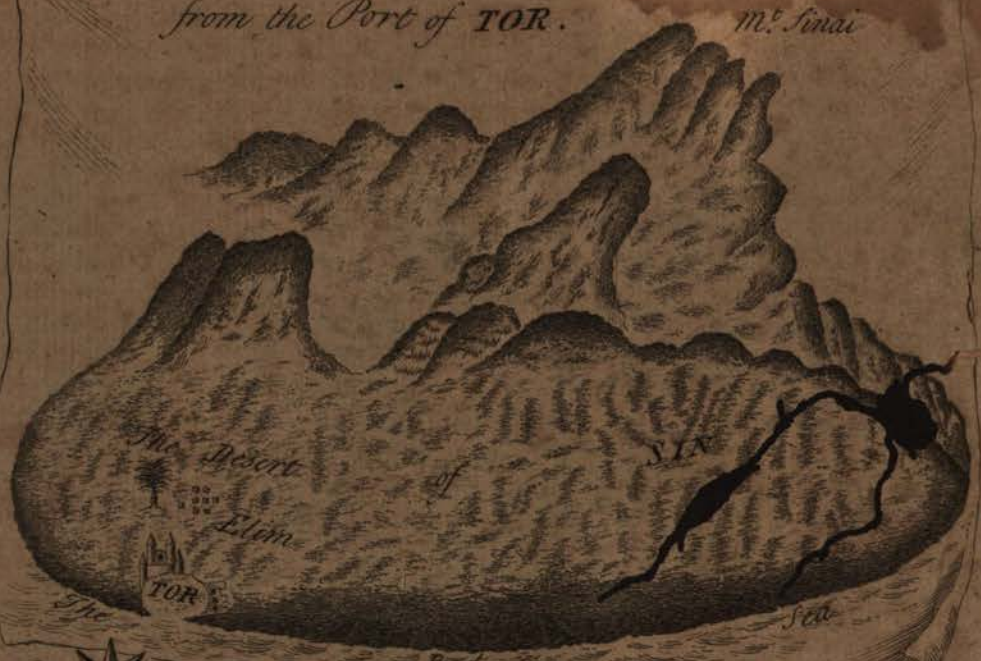
We have a diſtinct view of *mount Sinai* from *Elim*; the wilderneſs, as it is ſtill called, of *Sin* סין lying betwixt them. We traverſed theſe plains in nine hours; being all the way diverted with the ſight of a variety of *lizards* and *vipers*, that are here in great numbers. We were afterwards near twelve hours in paſſing the many windings and difficult ways, which lye betwixt theſe deſerts and thoſe of *Sinai*. The latter conſiſt of a beautiful plain, more than a league in breadth, and

[3] *Joſ. Antiq.* l. ii. cap. 7. [4] Not. p. 312.

nearly

To face p. 315.

The Prospect of Mount SINAI from the Port of TOR.



The Rock of MERIBAH

To the Reverend Peter Foulkes D. D.
Canon of Christ Church, Oxford.

nearly three in length, lying open towards the N. E. where we enter it, but is closed up to the southward, by some of the lower eminences of *mount Sinai*. In this direction, likewise, the higher parts of this mountain make such encroachments upon the plain, that they divide it into two, each of them capacious enough to receive the whole encampment of the *Israelites*. That which lyes to the eastward, may be the desert of *Sinai*, properly so called, where *Moses saw the angel of the Lord in the burning bush, when he was guarding the flocks of Jethro, Exod.* iii. 2. The *convent of St. Catharine* is built over the place of this *divine appearance*. It is near CCC foot square, and more than XL in height, being built partly with stone, partly with mud and mortar mixed together. The more immediate place of the *Shekinah* is honoured with a little chapel, which this old fraternity of St. *Basil* has in such esteem and veneration, that, in imitation of *Moses, they put off their shoes from off their feet*, whenever they enter it. This, with several other chapels, dedicated to particular *saints*, are included within the *church*, as they call it, *of the transfiguration*; which is a large beautiful structure, covered with lead, and supported by two rows of marble columns. The floor is very elegantly laid out in a variety of devices in *mosaic* work. Of the same tesselated workmanship likewise, are both the floor and the walls of the *presbyterium*; upon the latter whereof, is represented the *effigies* of the *emperor Justinian*, together with the history of the *transfiguration*. Upon the partition, which separates the *presbyterium* from the body of the church, there is placed a small *marble shrine*, wherein are preserved the skull, and one of the hands of St. *Catharine*; the rest of the sacred body having been bestowed, at different times, upon such *Christian Princes*, as have contributed to the support of this convent.

The plain of Sinai.

The convent of St. Catharine.

The church of the transfiguration.

The pilgrims are not admitted into this convent by the door, (which is open only when the *arch-bishop*, who usually resides at *Kairo*, comes to be installed) but we are drawn up, by a windlass, near thirty foot high, and then taken in at a window, by some of the *lay brothers*, who attend for that purpose. These, and the *papasses* or *presbyters*, who are commonly called *kalories*[5], make in all about a hundred and fifty; who live a very strict and austere life, abstaining not only from flesh, but also from butter, milk, and eggs; which even the pilgrims are not permitted to bring into the convent. The least mortification they undergo (which indeed is not often) is

Pilgrims not admitted by the door.

The austerity of this order.

Their diet.

[5] Καλογερὸς, i. e. *a good old man*. Vid. *Tournef. Voy.* Vol. i. p. 121.

when they receive, from their ſiſter convent at *Tor*, or from *Menah el Dſahab*, a quantity of ſhell fiſh, crabs or lobſters, other fiſh being prohibited by their inſtitution. For bread, or *biſcuit*, is the main article of their ſuſtenance; to which is added, according to the courſe of their ſtated days, half a pint of date brandy, together with a ſmall portion of olives, oil and vinegar, ſallad or potherbs; or elſe of dates, figs, almonds, parched pulſe, and ſuch like food as was the ξηροφαγία [6], *dry diet* of the primitive *Chriſtians*. Their bread, biſcuit, oil, olives, pulſe, and figs, are brought to them monthly from *Kairo:* but their dates, brandy, ſallad, and pot-herbs are chiefly from their own gardens and plantations.

Mount Sinai. Mount *Sinai*, which hangs over this convent, is called, by the *Arabs*, *Jibbel Mouſa*, i. e. *The mountain of Moſes*; and ſometimes only, by way of eminence, *El Tor*, i. e. *The mountain*. St. Helena, out of the great reverence ſhe had for this θεοβάδιστον ὄρος, according to the appellation of theſe *monks*, built a ſtair-caſe of ſtone, from the bottom to the top of it: but, at preſent, as moſt of theſe ſteps, which hiſtory [7] informs us, were originally ſix thouſand ſix hundred in number, are either tumbled down, or defaced, the aſcent is become very fatiguing, and frequently impoſed upon their votaries and pilgrims as a ſevere penance. However, at certain diſtances, the fathers have erected, as ſo many breathing places, ſeveral little chapels and oratories, dedicated to one or other of their ſaints; who, as they are always to be invoked upon theſe occaſions; ſo, after ſome ſmall oblation, they are always engaged to be propitious to lend their aſſiſtance.

The remarkable places upon it. The ſummit of *mount Sinai* is not very ſpacious; where the *Mahometans*, the *Latins*, and the *Greeks*, have each of them a ſmall chapel. Here we are ſhewn the place, where *Moſes faſted forty days*, *Exod.* xxxi. 18; where *his hand was ſupported by Aaron and Hur, at the battle with Amalek*, Exod. xvii. 9, 12; where *he hid himſelf from the face of God*; the cave, as they pretend to ſhew it, having received

[6] Vid. *Tertull. de Jejunio.*

[7] Vid. *Geographum anonymum Græcum apud L. Allatii* Σύμμικτα. The ſteps that remain, are each of them, a little more or leſs, a foot high; ſo that the perpendicular height of this mount may be computed, according to the number of theſe ſteps, to be 6600 foot, or 2200 yards, i. e. one mile and a quarter. But as the aſcent in ſome few places, is plainer and eaſier, without the traces of any ſteps, as indeed they were not wanting, a furlong or thereabouts may be added, ſo as to make the whole perpendicular height from the convent to the top, to be be more or leſs, 2400 yards.

the

the impreſſion of his ſhoulders; beſides many other places and ſtations recorded in Scripture.

After we had deſcended, with no ſmall difficulty, down the other or weſtern ſide of this *mount*, we come into the plain or wilderneſs of *Rephidim*, *Exod.* xvii. 1. where we ſee that extraordinary antiquity, the *rock of Meribah*, *Exod.* xvii. 6. which has continued down to this day, without the leaſt injury from time or accidents. This is rightly called, from its hardneſs, *Deut.* viii. 15. *a rock of flint*, צור החלמיש; though from the purple or reddiſh colour of it, it may be rather rendered *the rock of* חלם or אחלמה *amethyſt*, or *the amethyſtine*, or *granate rock*. It is about ſix yards ſquare, lying tottering, as it were, and looſe, near the middle of the valley, and ſeems to have been, formerly, a part or cliff of *mount Sinai*, which hangs, in a variety of precipices, all over this plain. *The waters*, which *guſhed out*, *and the ſtream*, which *flowed withal*, *Pſal.* vii. 8. 21. have hollowed acroſs one corner of this rock, a channel, about two inches deep, and twenty wide, all over incruſtated, like the inſide of a tea-kettle that has been long uſed. Beſides ſeveral moſſy productions, that are ſtill preſerved by the dew, we ſee all over this channel, a great number of holes, ſome of them four or five inches deep, and one or two in diameter, the lively and demonſtrative tokens of their having been formerly ſo many fountains. Neither could art or chance be concerned in the contrivance; inaſmuch as every circumſtance points out to us a miracle; and, in the ſame manner with the rent in the rock of *mount Calvary* at *Jeruſalem*, never fails to produce the greateſt ſerioufneſs and devotion in all who ſee it. The *Arabs*, who were our guards, were ready to ſtone me, in attempting to break off a corner of it.

The valley of Rephidim.

The rock of Meribah.

The *Monks*, likewiſe, ſhew us ſeveral other remarkable places; as where *Aaron's calf* was molten, *Exod.* xxxii. 4. (but the head only is repreſented, and that very rudely;) where the *Iſraelites danced* at the conſecration of it, *Exod.* xxxii. 19; where *Corah and his company were ſwallowed up*, *Numb.* xvi. 32; where *Elias hid himſelf*, when he fled from *Jezebel*, 2 *Kings* viii. 9. But the hiſtory of theſe, and of the other places, which I have mentioned, upon the mount, is attended with ſo many *Monkiſh* tales and inconſiſtencies, that it would be too tedious to relate them.

The remarkable places round about this mountain.

From *mount Sinai* the *Iſraelites* directed their marches, northward, towards the land of *Canaan*. The next remarkable encampments, therefore, were in the deſert of *Paran*, which ſeems to have commenced immediately upon their departing from *Hazaroth*, three ſtations or days journey, *i. e.* xxx M. as we will only compute them, from

The deſert of Paran, *or* Tzin.

from *Sinai*, *Numb*. x. 33, and xii. 16. And as tradition has continued down to us the names of *Shur*, *Marah*, and *Sin*, so has it also that of *Paran*; the ruins of the late convent of *Paran*, built upon those of an ancient city of *that name* (which might give denomination to the whole desert) being found about the half way betwixt *Sinai* and *Corondel*, which lye at forty leagues distance. This situation of *Paran*, so far to the S. of *Kadesh*, will illustrate *Gen*. xiv. 5, 6. where *Chederlaomer, and the kings that were with him, are said to have smote the Horites in their mount Seir, unto El Paran*, (i. e. unto the city, as I take it, of that name) *which is in*, or *by the wilderness*.

The whole country round about *Paran*, is very mountainous, making part of the μέλανα ὄρη of *Ptolemy*[8]; which, he tells us, extended from the promontory of *Paran* as far as *Judæa*, and would therefore take in the *Accaba*, which will be hereafter mentioned.

From the more advanced part of the wilderness of *Paran* (the same that lay in the road betwixt *Midian* and *Egypt*, 1 *King*. xi. 18.) *Moses sent a man out of every tribe, to spy out the land of Canaan*, Num. xxiii. 3. *who returned to him, after forty days, unto the same wilderness, to Kadesh Barnea*, *Numb*. xxxii. 8. *Deut*. i. 19. and ix. 23. *Josh*. xiv. 7. This place or city, which in *Gen*. xiv. 7. is called *Enmishpat*, (i. e. the fountain *Mishpat*) is (in *Numb*. xx. 1.—xxvii. 14.—xxxiii. 36.) called *Tzin Kadesh*, or simply *Kadesh*, (as in *Gen*. xvi. 14. and xx. 1.) and being equally ascribed to the desert of צין *Tzin* and to the desert of *Paran*, we may presume that the desert of *Tzin and Paran* were one and the same. צן or צנים, may be so called from the plants of divers palm grounds upon it.

Kadesh *more than* xx M. *from* Sinai.

A late ingenious author[9] has situated *Kadesh Barnea*, a place of no small consequence in Scripture history, which we are now enquiring after, at eight hours, or twenty miles distance, only, from *mount Sinai*, which, I presume, cannot be admitted, for various reasons. Because several texts of Scripture insinuate, that *Kadesh* lay at a much greater distance. Thus, in *Deut*. i. 9. it is said, they departed from *Horeb*,

[8] Τὸ κατὰ Φαρὰν ἀκρωτήριον ἐπέχει μοίρας ξε κη ς
Επέχει δὲ καὶ ἡ μὲν Φάρα κώμη μοίρας ξε κη γο
Διατείνει δὲ ἐν τῇ χώρᾳ, (*Arabiæ Petrææ*) τὰ καλούμενα Μέλανα ὄρη ἀπὸ τοῦ κατὰ Φαρὰν μυχοῦ, ὡς ἐπὶ τὴν Ιουδαίαν, καὶ ἀπὸ μὲν δύσεως τῶν ὀρέων τούτων παρὰ τὴν Αἴγυπτον, ἥ τε ΣΑΡΑΚΗΝΗ παρήκει. *Ptolem*. Geogr. l. v. cap. 17.

[9] *Descript. of the East*, Vol. i. p. 157.

through

through *that great and terrible wilderneſs*, (which ſuppoſes by far a much greater extent both of time and ſpace,) *and came to Kadeſh Barnea*; and in chap. ix. 23. *when the Lord ſent you from Kadeſh Barnea to poſſeſs the land:* which, *Numb.* xx. 16. *is deſcribed to be a city in the uttermoſt part of the border of Edom:* the border of the land of *Edom*, and that of the *Land of promiſe*, being contiguous, and in fact, the very ſame. And further, *Deut.* i. 2. it is expreſsly ſaid, that *there are eleven days journey from Horeb, by* the way *of mount Seir to Kadeſh Barnea:* which, from the context, cannot be otherwiſe underſtood, than of marching along *the direct road.* For *Moſes* hereby intimates, how ſoon the *Iſraelites* might have entered upon the borders of the *Land of promiſe*, if they had not been a ſtubborn and rebellious people. Whereas the number of their ſtations, betwixt *Sinai* and *Kadeſh*, as they are particularly enumerated, *Numb.* xxxiii. (each of which muſt have been, at leaſt, one days journey) appear to be near twice as many, or xxi; in which they are ſaid, with great truth and propriety, (*Pſal.* cvii. 4.) *to have wandered in the wilderneſs, out of the way*; and in *Deut.* ii. 1. *to have compaſſed mount Seir*, rather than to have travelled directly through it. If then we allow x miles for each of theſe eleven day's journey, (and fewer, I preſume, cannot well be inſiſted upon) the diſtance of *Kadeſh* from *mount Sinai*, will be about cx miles.

The diſtance betwixt Kadeſh *and* Rehob.

That x M. a day (I mean in a direct line, as laid down in the map, without conſidering the deviations, which are every where, more or leſs) were equivalent to one day's journey, may be further proved from the hiſtory of the *ſpies*, who *ſearched the land* (*Numb.* xiii. 21.) *from Kadeſh to Rehob, as men come to Hamath*, and returned in forty days. *Rehob* then, the furtheſt point of this expedition to the northward, may well be conceived to have been twenty days journey from *Kadeſh*; and therefore to know the true poſition of *Rehob*, will be a material point in this diſquiſition. Now it appears from *Joſh.* xix. 29, 30. and *Judg.* i. 31. that *Rehob* was one of the maritime cities of the tribe of *Aſher*; and lay, (in travelling, as we may ſuppoſe, by the common or neareſt way, along the ſea coaſt;) לבה חמת *Numb.* xiii. 21. (not, as we render it, *as men come to Hamath*, but) as *men go towards Hamath, in going to Hamath*, or *in the way* or *road to Hamath.* For to have ſearched the land as far as *Hamath*, and to have returned to *Kadeſh* in forty days, would have been altogether impoſſible. Moreover, as the *tribe of Aſher* did not reach beyond *Sidon*, (for that was its northern boundary, *Joſh.* xix. 28.) *Rehob* muſt have been ſituated to the ſouthward of *Sidon*, upon, or (being a derivative perhaps from

from רחב *latum esse*) below in the plain, under a long chain of mountains that runs E. and W. through the midst of that tribe. And as these mountains, called, by some, the mountains of *Saron*, are all along, except in the narrow, which I have mentioned, near the sea, very rugged and difficult to pass over; the *spies*, who could not well take another way, might imagine they would run too great a risque of being discovered, in attempting to pass through it. For in these eastern countries, a watchful eye was always, as it is still, kept upon strangers, as we may collect from the history of the two angels at *Sodom*, *Gen.* xix. 5. and of the spies at *Jericho*, *Josh.* ii. 2. and from other instances. If then we fix *Rehob*, upon the skirts of the plains of *Acre*, a little to the S. of this narrow road, (the *Scala Tyriorum*, as it was afterwards named) somewhere near *Egdippa*, the distance betwixt *Kadesh* and *Rehob*, will be about CCX M; whereas, by placing *Kadesh* twenty miles only from *Sinai* or *Horeb*, the distance will be CCCXXX; and instead of 11 miles a day, according to the former computation, the *spies* must have travelled near XVII; which, for forty days successively, seems to have been too difficult an expedition in this hot, and consequently fatiguing climate; especially as they were on foot, or *footpads*, as מרגלים (their appellation in the original) may probably import. These geographical circumstances, therefore, thus corresponding with what is actually known of those countries at this time, should induce us to situate *Kadesh*, as I have already done, CX miles to the northward of *mount Sinai*, and XLII M. to the westward of *Eloth*, near *Callah Nahar*, i. e. the castle of the river or fountain, (probably the *Ain Mishpat*) a noted station of the *Mahometans*, in their pilgrimage to *Mecca*.

Mount Seir *lay betwixt the gulphs of* Eloth *and* Heroopolis.

From *Kadesh*, the *Israelites* were ordered to turn into the *wilderness, by the way of the Red-sea*; (*Numb.* xiv. 25. *Deut.* i. 40.) i. e. they were at this time, in punishment of their murmurings, infidelity, and disobedience, to advance no further northward towards the *land of Canaan*. Now these marches are called, *the compassing of mount Seir*, *Deut.* ii. 1. and *the passing by from the children of Esau, which dwelt in Seir, through the way of the plain of Eloth, and Ezion-gaber*, ver. 8. The wandering therefore of the children of *Israel*, during the space of thirty eight years, *Deut.* ii. 14. was confined, in all probability, to that neck of land only, which lyes bounded by the gulphs of *Eloth* and *Heroopolis*. If then we could adjust the true position of *Eloth*, we should gain one considerable point, towards the better laying down and circumscribing this mountainous tract, where the *Israelites* wandered for so many years.

Now

Now there is an universal consent among geographers, that עילת *Eloth, Ailah*, or *Aelana*, as it is differently named, was situated upon the northern extremity of the gulph of that name [1]. *Ptolemy* [2] indeed places it 45′ to the S. of *Heroopolis*, and nearly 3° to the E. whereas *Abulfeda* [3], whose later authority, and perhaps greater experience, should be more regarded, makes the extremities of the two gulphs to lye nearly in the same parallel, though without recording the distance between them. I have been often informed by the *Mahometan* pilgrims, who, in their way to *Mecca*, pass by them both, that they direct their marches from *Kairo*, eastward, till they arrive at *Callah Accaba*, or *the castle* (situated below the mountains) *of Accaba*, upon the *Elanitic* point of the *Red-sea*. Here they begin to travel betwixt the south and south-east, with their faces directly towards *Mecca*, which lay hitherto upon their right hand; having made in all, from *Adjeroute*, x M. to the N. N. W. of *Suez*, to this castle, a journey of seventy hours [4]. But as this whole tract is very mountainous, the road must consequently be attended with great variety of windings and turnings, which would hinder them from making any greater progress, than at the rate, we will suppose, of about half a league an hour.

Eloth and Heroopolis nearly in the same latitude.

Eloth then (which is the place of a *Turkish* garrison at present, as it was a *præsidium* [5] of the *Romans* in former time) will lie, according to this calculation, about CXL M. from *Adjeroute*, in an E. by S. direction: a position which will likewise receive further confirmation, from the distance that is assigned to it from *Gaza*, in the old geography. For, as this distance was CL *Roman* miles according to *Pliny* [6], or CLVII according to other authors [7], *Eloth* could not have

The situation of Eloth and Gaza.

[1] Ἐνθεῦθεν δ' (a *Gaza*. sc.) ὑπέρβασις λέγεται χιλίων διακοσίων ἑξήκοντα σταδίων εἰς Αἴλαν πόλιν ἐπὶ τῷ μυχῷ τοῦ Ἀραβίου κόλπου κειμένην. *Strab.* l. xvi. p. 1102.

[2] Ἡ Ἐλάνα καὶ ὁ μυχὸν κειμένη τοῦ ὁμωνύμου κόλπου, ἐπέχει μοίρας ξε λγ νθ δ. Vid. *Ptol.* ut supra, & not. p. 305.

[3] Vid. not. 1. p. 313.

[4] Vid. these several stations in the COLLECTANEA.

[5] Sedet ibi (apud *Ailat*) legio Romana, cognomento Decima: et olim quidem *Ailat* a veteribus dicebatur; nunc vero adpellatur *Aila*. *Hieronym.* in locis Hebraicis. In litore maris inter *Ahila* (pro *Ailat*, ut supra) posita est, ubi nunc moratur legio & præsidium Romanorum. *Id.* in cap. xlvii. *Ezech.*

[6] *Heroopoliticus* vocatur, alterque *Ælaniticus*. sinus Rubri maris in *Ægyptum* vergentis CL millia passuum intervallo inter duo oppida *Ælana*, & in nostro mari *Gazam*. Plin. l. v. cap. 11.

[7] Vid. supra, not. 1. et *Marcian. Heracl.* in *Periplo*.

had a more ſouthern ſituation than lat. 29°, 40′. Neither could it have had a more northern latitude, inaſmuch as this would have ſo far invalidated a juſt obſervation of *Strabo's* [8], who makes *Heroopolis* and *Peluſium* to be much nearer each other than *Eloth* and *Gaza*. And beſides, as *Gaza* is well known to lie in *lat.* 31° 40′ (as we have placed *Eloth* in *lat.* 29° 40′) the difference of *lat.* betwixt them, will be 2°, or CXX geographical miles; which converted into *Roman* miles, (LXXV ½ of which make one *degree*) we have the very diſtance (eſpecially as they lie nearly under the ſame meridian) that is aſcribed to them above, by *Strabo* and *Pliny*.

Several encampments near mount Seir.

Yet notwithſtanding this point may be gained, it would ſtill be too daring an attempt, even to pretend to trace out above two or three of the encampments, mentioned *Numb.* xxxiii. though the greateſt part of them was, in all probability, confined to this tract of *Arabia Petræa*, which I have bounded to the E. by the meridian of *Eloth*, and to the W. by that of *Heroopolis*; *Kadeſh* lying near or upon the ſkirts of it to the northward.

The ſituation of Eziongaber, *now the* Port of gold.

However, one of their more ſouthern ſtations, after they left *mount Sinai* and *Paran*, ſeems to have been at *Eziongaber*; which being the place from whence *Solomon's navy went for gold to Ophir*, 1 *Kings* ix. 26. 2 *Chron.* viii. 17. we may be induced to take it for the preſent *Meenah el Dſahab*, i. e. *The port of gold*. According to the account I had of this place, from the *monks of St. Catharine*, it lies in the gulph of *Eloth*, betwixt two and three days journey from them; enjoying a ſpacious harbour; from whence they are ſometimes ſupplied, as I have already mentioned, with plenty of lobſters and ſhell-fiſh. *Meenah el Dſahab*, therefore, from this circumſtance, may be nearly at the ſame diſtance from *Sinai* with *Tor*, from whence they are likewiſe furniſhed with the ſame proviſions; which, unleſs they are brought with the utmoſt expedition, frequently corrupt and putrify. I have already given the diſtance betwixt the N. W. part of the deſert of *Sin* and *mount Sinai*, to be XXI hours: and if we further add III hours, (the diſtance betwixt the deſert of *Sin*, and the port of *Tor*, from whence theſe fiſh are obtained,) we ſhall have in all XXIV hours, *i. e.* in round numbers, about LX miles. *Eziongaber*, conſequently, may lie a little more or leſs at that diſtance from *Sinai*: becauſe the days journeys,

[8] Διπλοῦς δ' ἐστὶν (ſc. Sinus *Arabicus*) ὁ μὲν εἰς ἔχων τὸ πρὸς τῇ Ἀραβίᾳ καὶ τῇ Γάζῃ μέρος, οὗ Ἐλανίτην προσαγορεύουσιν ἀπὸ τῆς ἐν αὐτῷ πόλεως· ὁ δ' εἰς τὸ πρὸς Αἰγύπτῳ καλοῦσι τὴν Ἡρώων πόλιν, εἰς ὃν ἐκ Πηλουσίου ἡ ὑπέρθεσις ἐπιλομωλέγα, &c. *Strab.* l. xvi. p. 1102.

which the *Monks* ſpeak of, are not perhaps to be conſidered as ordinary and common ones; but ſuch as are made in haſte, that the fiſh may arrive in good condition.

In the *Deſcript. of the Eaſt*, p. 157. *Eziongaber* is placed to the S. E. of *Eloth*, and at two or three miles only from it; which, I preſume, cannot be admitted. For as *Eloth* itſelf is ſituated upon the very point of the gulph, *Eziongaber*, by lying to the S. E. of it, would belong to the *land of Midian*; whereas *Eziongaber*, was undoubtedly a ſea port in the *land of Edom*, as we learn from the authorities above related, *viz.* where *king Solomon* is ſaid to have *made a navy of ſhips in Eziongaber, which is* את עילת *beſide Eloth, on the ſhore of the Red-ſea, in the land of Edom.* Here it may be obſerved, that the word את which we render *beſide*, (viz. *Eloth*) ſhould be rendered *together with Eloth*; not denoting any vicinity betwixt them, but that they were both of them *ports of the Red-ſea, in the land of Edom.* Eziongaber *not to the* S. E. *of* Eloth.

From *Eziongaber* the *Iſraelites* turned back again to *Kadeſh*, with an intent to direct their marches that way into the *land of Canaan*. But upon *Edom's* refuſing to give *Iſrael paſſage through his border*, (*Numb.* xx. 18.) *they turned away from him*, to the right hand, as I ſuppoſe, towards *mount Hor*, (*Numb.* xx. 21.) which might lie to the eaſtward of *Kadeſh*, in the road from thence to the *Red-ſea:* and as *the ſoul of the children of Iſrael* is ſaid to have been here *much diſcouraged becauſe of the way*, it is very probable, that *mount Hor* was the ſame chain of mountains that are now called *Accaba*, by the *Arabs*; and were the eaſtermoſt range, as we may take them to be, of *Ptolemy's* μέλανα ὄρη above deſcribed. Here, from the badneſs of the road, and the many rugged paſſes that are to be ſurmounted, the *Mahometan pilgrims* loſe a number of camels, and are no leſs fatigued, than the *Iſraelites* were formerly, in getting over them. Mount Hor *the ſame with* Accaba.

I have already hinted, that this chain of mountains, the μέλανα ὄρη of *Ptolemy*, reached from *Paran* to *Judæa*. *Petra* therefore, according to its later name, the *metropolis* of this part of *Arabia*, may well be ſuppoſed to lie among them, and to have been left by the *Iſraelites*, on their left hand, in journeying towards *Moab*. Yet it will be difficult to determine the ſituation of this city, for want of a ſufficient number of geographical *data* to proceed upon. In the old geography, *Petra* is placed CXXXV M. to the eaſtward of *Gaza* [9], and four days journey from *Jericho* [1] to the ſouthward. Petra.

[9] *Nabathæarum* oppidum *Petra* abeſt a *Gaza*, oppido litoris noſtri, DC M. a ſinu *Perſico* CXXXV M. *Plin.* l. vi. cap. 28. *Inverte nomina:* a Gaza CXXXV, *&c. Sic numeri melius conſtabunt, & ceteris tam geographis, quam hiſtoricis, conciliari poterunt.* Cellar. *Geogr. Antiq.* l. iii. p. 418.

[1] *Strab.* l. xvi. p. 1105—6.

But neither of these distances can be any ways accounted for; the first being too great, the other too deficient. For as we may well suppose *Petra* to lie near, or upon the border of *Moab, seven days journey*. would be the least; the same that the three kings took thither, 2 *Kings* iii. 9. (by fetching a compass, as we imagine) from *Jerusalem*, which was nearer to that border than *Jericho*. However, at a *medium*, *Petra* lay, in all probability, about the half way betwixt the S. extremity of the *Asphaltic* lake and the gulf of *Eloth*, and may be therefore fixed near the confines of the country of the *Midianites* and *Moabites*, at LXX miles distance from *Kadesh* towards the N. E. and LXXXV from *Gaza* to the S. According to *Josephus*, it was formerly called *Arce* [2], which *Bochart* supposes to be a corruption of *Rekem* [3], the true and ancient name. The *Amalekites* [4], so frequently mentioned in Scripture, were once seated in the neighbourhood of this place; who were succeeded by the *Nabathæans*, a people no less famous in profane history.

The direction of their marches from mount Hor.

From *mount Hor*, the direction of their marches, through *Zalmona*, *Punon*, &c. seems to have been betwixt the N. and N. E. For it does not appear that they *wandered* any more *in the wilderness*, *out of the direct way*, that was to conduct them through the country of *Moab*, (*Numb.* xiii. 48, 49.) into the *Land of promise*.

The Rabbinical *map of the* H. land, *&c.*

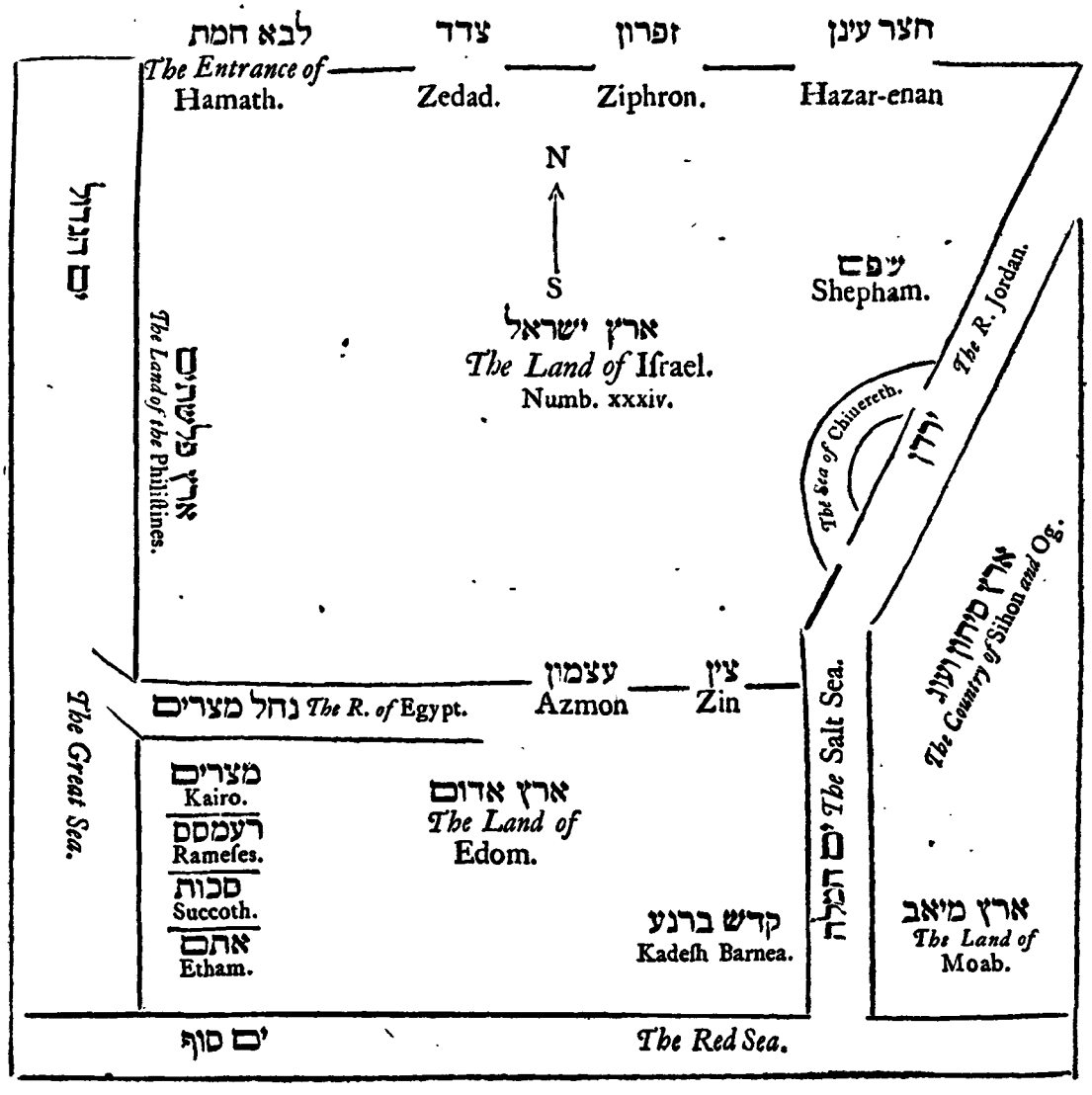
In the *Rabbinical* geography [5], several of the places, which have been taken notice of in this, and in the foregoing chapter, are laid down in the following manner.

[2] *Jos. Antiq.* l. iv. cap. 4.

[3] *Rekam* vel *Rakim* est *Petra* urbs, aliis *Rocom*, *Recem*, *Receme*, &, præfixo articulo, *Areceme*, & per apocopen *Arce*, Petrææ scilicit metropolis הגר *Hagar*, i. e. *Petra* a situ dicta, quia *in ea domus excisæ sunt in Petra*. Et *Rekem* a conditore rege *Madian*, de quo *Numb.* xxxi. 8. Hinc Josephus, l. iv. cap. 7. ita habet de *Recemo* rege *Madian*: Ρέκεμ@-, ὃ πόλις ἐπώνυμος τὸ πᾶν ἀξίωμα τ῀ Αραβων ἔχουσα γῆς. Et rursus Αρεκέμη καλεῖται Πέτρα, παρ' Ελλησι λεγομένη. Et *Eusebius* de locis: Ρεκὲμ, αὕτη ἐστὶ Πέτρα, πόλις τ῀ Αραβίας, ἧς ἐβασίλευσε Ροκόμ. Vid. *Boch. Can.* l. i. cap. 44.

[4] Οἱ δὲ Γοβολίτην καὶ τὴν Πέτραν καλοικοῦντες, οἳ καλοῦνται μὲν Αμαληκῖται. *Jos. Antiq. Jud.* l. iii. cap. 2. *Nabatæi* oppidum incolunt *Petram* nomine, &c. *Plin.* l. vi. cap. 28. Vid. not. 9. ut supra.

[5] Vid. *Rabbi Eliæ Mizrachi Comment. in Pentateuchum.* Ven. 1545. p. ר"פ.


לבא חמת
צדד
זפרון
חצר עינן
The Entrance of Hamath.
Zedad.
Ziphron.
Hazar-enan
N
S
ים הגדול
ארץ פלשתים
The Land of the Philiſtines.
ארץ ישראל
The Land of Iſrael.
Numb. xxxiv.
שפם
Shepham.
The R. Jordan.
The Sea of Chinereth.
ירדן
ארץ סיחון ועוג
The Country of Sihon and Og.
עצמון
Azmon
צין
Zin
נחל מצרים The R. of Egypt.
The Great Sea.
The Salt Sea.
ים המלח
מצרים
Kairo.
רעמסס
Rameſes.
סכות
Succoth.
אתם
Etham.
ארץ אדום
The Land of Edom.
קדש ברנע
Kadeſh Barnea.
ארץ מואב
The Land of Moab.
ים סוף
The Red Sea.

PHY-

PHYSICAL AND MISCELLANEOUS

OBSERVATIONS

IN

SEVERAL PARTS

OF THE

LEVANT.

TOME II. PART II.

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OF

TOME II. PART II.

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CHAP.

CHAP. I.

Phyſical obſervations, &c. *or an Eſſay towards the Natural Hiſtory of* Syria, Phœnice, *and the* Holy Land.

THE air and weather, in theſe countries, differ very little from the deſcriptions that have been given of them in the *Natural hiſtory* of *Barbary*[1]. For among many other particulars, of the like nature and quality, which need not be repeated, we find the weſterly winds to be here attended with rain; *When we ſee a cloud*, (ſays our Saviour, *Luke* xii. 54.) *riſe out of the weſt, ſtraightway ye ſay, There cometh a ſhower, and ſo it is*[2]. But the eaſterly winds are

The air and weather the ſame as in Barbary.

[1] Vid. p. 133, 134, &c.

[2] This branch of the *Natural hiſtory* is further taken notice of, 1 *Kings* xviii. 41, &c.

usually dry, notwithstanding they are sometimes exceeding hazy, and tempestuous; at which times they are called, by the sea-faring people, *Levanters*, being not confined to any one single point, but blow, in all directions, from the N. E. round by the N. to the S. E. The *great wind*, or *mighty tempest*, or *vehement E. wind*, described by the prophet *Jonas*, i. 4, and iv. 8, appears to have been one of these *Levanters*.

Strong easterly winds called Levanters.

The *Euroclydon* [3] also, which we read of in the history of St. *Paul*, (*Acts* xxvii. 14.) was, in all probability, the same. For it was (as St. *Luke* describeth it) ἄνεμος τυφωνικὸς [4], a violent, or *tempestuous wind*, bearing away all before it; and, from the circumstances which attended it, appears to have varied very little, throughout the whole period of it, from the true east point. For after the ship could not ἀντοφθαλμεῖν, *bear*, (or, in the mariner's term, *loof*) *up against it*, (ver. 15.) but *they were obliged to let her drive*, we cannot conceive, as there are no remarkable currents in this part of the sea, and as the rudder could be of little use, that it could take any other course, than as the winds alone directed it. Accordingly, in the description of the storm, we find the vessel was first of all *under the island Clauda*, (ver. 16.) which is a little to the southward of the parallel of that part of the coast of *Crete*, from whence it may be supposed to have been driven; then it

The Euroclydon *was probably one of them.*

It varied very little from the east point.

[3] Εὐροκλύδων, according to the annotations of *Erasmus*, *Vatablus*, and others, is said to be, *vox hinc ducta, quod ingentes excitet fluctus*; as if those commentators understood it to have been, as *Phavorinus* writes it (*in voce* Τυφὼν) Εὐρυκλύδων, and, as such, compounded of εὐρὺς, (*latus, amplus*, &c.) and κλύδων, *fluctus*. But rather, if an *etymology* is required, as we find κλύδων used by the LXXII, (*Jon.* i. 4, 12.) instead of סַעַר, which always denotes a tempest, as I conjecture, properly so called, Εὐροκλύδων will be the same with Εὖρος κλύδων, i. e. *an eastern tempest*, and so far express the very meaning that is affixed to a *Levanter* at this time.

[4] Though Τυφὼν or Τυφὼς may sometimes denote a whirlwind, yet it seems in general to be taken for any violent wind or tempest. According to an observation of *Grotius* upon the place, *Judæis Hellenistis* Τυφὼς *est quævis violentior procella.* Τὸς γὰρ καλουμένους ἀνέμους Τυφὼς καλοῦσι, says *Suidas*. *Aristot. De mundo*, cap. 4. seems to distinguish it from the Πρηστὴρ (which he calls *a violent strong wind*) by not being attended with any fiery *meteors*. Ἐὰν δὲ (πνεῦμα) ἡμίπυρον ᾖ, σφόδρον ᾖ ἄλλως τε αἰθρίου, Πρηστὴρ [καλεῖται·] ἐὰν ᾖ ἄπυρον ᾖ παντελῶς, Τυφών. Τυφὼν, as *Olympiodorus*, in his comment upon the foregoing passage, instructs us, is so called, Ἀφ' τὸ τύπτειν διὰ τὸ τάχος τὸ πνεύματος; or Ἀφ' τὸ τύπτειν σφοδρῶς, as we read it in *C. a Lapide*, *Acts* xxvii. 14. Τυφὼν γάρ ἐστιν ἡ τὸ ἀνέμου σφοδρὰ πνοή· ὃς καὶ εὐρυκλύδων καλεῖται. *Phavor.* in lex. One of these *Levanters* is elegantly described by *Virgil* (Geor. ii. ver. 107.) in the following lines,

——Ubi navigiis *violentior* incidit *Eurus*,
Nosse, quot Ionii veniant ad litora *fluctus*.

To face p. 331

MARE
INFERUM
sive
TYRRHENUM
ITALIA
SINUS
PARS
ADRI
ATICUS
SICILIA
Melita
MARE
ASIA
PROPRIA
CAPADO
CIA
CILICIA
CYPRUS I.
Rhodus I.
CRETA
SYRTIS
DELTÆ
PARS
To the Reverend
PHILIP BARTON LLD
Canon of Christ Church
Oxford.
A Scale of fifty Leagues

was *toſſed* along the bottom of *the gulph of Adria*, ver. 27. and afterwards broken to pieces (ver. 41.) at *Melita*, which is a little to the northward of the parallel abovementioned: ſo that the direction and courſe of this particular *Euroclydon* ſeems to have been firſt at E. *by* N. and afterwards pretty nearly E. *by* S.

Euroclydon. *ſuppoſed to be* Euroaquilo; *the ſame with the* Cæcias.

But *Grotius* [5], *Cluver* [6], and others, authoriſed herein by the *Alexandrian* MS. and the *vulgate Latin*, are of opinion, that the true reading ſhould be Εὐροακύλων, *Euroaquilo*; a word indeed as little known as *Euroclydon*, though perhaps leſs entitled to be received. For this *Euroaquilo*, agreeable to the words of which it is compounded, muſt have been a wind betwixt the *Eurus* and the *Aquilo*; and conſequently would be the ſame with the *Cæcias* [7] or Καικίας; a name ſo frequently taken notice of by the *Roman* authors, that it appears to have been adopted into their language. Thus we find *Vitruvius*, l. i. c. 6. deſcribing the poſition of the *Cæcias*, without diſtinguiſhing it by *Greek* characters, or making any apology for the introduction of a foreign name. *Pliny* [8] likewiſe calls the ſame wind *Helleſpontias* [9], as blowing from the *Helleſpont*. The *Cæcias*, therefore, muſt have been known very early in the *Roman* navigation; and conſequently, even provided the mariners had been *Romans*, there was no neceſſity, at this time, and upon ſuch an occaſion, for the introduction of *Euroaquilo*; which muſt have been altogether [1] a new term.

The ſhip navigated by Grecians.

Beſides, as we learn, *Acts* xxvii. 6. that the ſhip was of *Alexandria*, ſailing to *Italy*, the mariners may well be ſuppoſed to have been *Grecians*, and muſt therefore be too well acquainted with the received and vernacular terms of their occupation, to admit of this *Græco-Latin*, or barbarous appellation. For it may be very juſtly objected, that, provided the *Euroaquilo* had been a name ſo early received as this voyage of St. *Paul*, it is much that *Pliny*, *A. Gellius*, *Apuleius*, *Iſidore*, and other authors, who wrote expreſsly upon the names and

Euroaquilo *taken notice of by no author.*

[5] Vid. *Grot. Annot. in Act.* xxvii. 14.

[6] Ego amplectendam heic omnino cenſeo vocem, quam divus *Hieronymus* & ante hunc auctor Vulgatæ ſacrorum bibliorum verſionis, in ſuis exemplaribus legerunt Εὐροακύλων, *Euroaquilo*, quod vocabulum ex duabus vocibus, altera Græca Εὖρος, altera Latina *Aquilo*, compoſitum, eum denotat ventum, qui inter Aquilonem & Eurum medius ſpirat, qui recta ab meridionali *Cretæ* latere navim infra *Gaudum* verſus Syrtin abripere poterat. *Cluv. Sicil. Antiq.* l. ii. p. 442.

[7] Ab oriente ſolſtitiali excitatum, Græci Καικίαν appellant: apud nos ſine nomine eſt. *Senec. Nat. Quæſt.* l. v. cap. 16. Euri vero medias partes tenent; in extremis, *Cæcias* & *Vulturnus*. *Vitr. Arch.* l. i. cap. 6.

[8] Vid. *Plin. Nat. Hiſt.* l. ii. cap. 47.

[9] *Cæcias* aliqui vocant *Helleſpontian*. *Plin.* ibid. Καικίας, ὃν Ἑλλησποντίαν ἔνιοι καλοῦσι. *Ariſt. Meteor.* l. ii. cap. 6.

[1] *Cæcias* media inter Aquilonem & exortum æquinoctialem, ab ortu ſolſtitiali. *Plin.* ut ſupra.

diverſities of winds [2], ſhould not have taken the leaſt notice of this. Whereas, if *Euroclydon* be a term or appellation peculiar to the mariners, denoting one of theſe ſtrong *Levanters*, we are to be the leſs ſurpriſed, why St. *Luke* (who was actually preſent in the ſtorm, and may be ſuppoſed to have heard the very word) is the only author who records it. Moreover, when we are told, that this *tempeſtuous wind* was *called Euroclydon*, the expreſſion ſeems to ſuppoſe it not to have been one of the common winds, ſuch as were entirely denominated from their ſite and poſition, but ſuch an one as received its name from ſome particular quality and circumſtance, which over and above attended it.

The Cæcias *of the ſame quality with other* Levanters.

I never obſerved any *phænomena*, that were more peculiar to the *Cæcias*, (the N. E. *by* E. wind, as we will ſuppoſe it) than to any other *Levanter*. *Ariſtole* indeed, (who is partly followed herein by *Pliny* [3]) deſcribes it [4] to have a property, contrary to all other winds, ἀνακάμπτειν εἰς αὐτὸν, *of drawing*, as *A. Gellius* [5] interprets it, *the clouds to itſelf*. But this is an expreſſion, as well as quality, which it will be difficult to comprehend; unleſs we may preſume to explain it, by (what indeed it has only in common with other *Levanters*) either the hazineſs of the atmoſphere that accompanies it, or elſe by the great accumulation of clouds, which (to uſe the mariners phraſe) frequently *hang*, without diſſipating, for ſeveral days together, *in the eaſt wind's eye*. For at other times, theſe, no leſs than the oppoſite winds, are, even by *Ariſtotle's* confeſſion [6], attended with long ſucceſſions of clouds, driving each other forward, with great force and impetuoſity.

Several rocks laid bare by the Levanters.

We are to obſerve further, with regard to theſe *Levanters*, that when they are of a long continuance, the water is blown away, to ſuch a degree, from the coaſt of *Syria* and *Phœnice*, that ſeveral ranges of rocks, which, in weſterly winds, lye concealed under water, do now become dry, and thereby leave expoſed, to the water fowl, *urchins*, *limpets*, and other *ſhell-fiſh*, which fix themſelves upon

[2] Vid. *Plin. Nat. Hiſt.* l. ii. cap. 47. *Aul. Gell. Noct. Attic.* l. ii. cap. 22. *Apul. De mundo. Iſid. Orig.* l. xiii. cap. 11.

[3] Narrant & in Ponto *Cæcian* in ſe trahere nubes. *Plin. Nat. Hiſt.* l. ii. cap. 48.

[4] Ὁ δὲ Καικίας ἔκ αὐθεσίᾳ, ὅτι ἀνακάμπτει εἰς αὐτόν· ὅθεν καὶ λέγεται ἡ παροιμία, Ἕλκων ἐφ' αὑτὸν ὥσπερ Καικίας νέφος. *Ariſt. Meteorol.* l. ii. cap. 6.

[5] *Viz.* l. ii. cap. 22. *Ariſtoteles* ita flare dicit *Cæcian*, ut nubes non procul propellat, *ſed ut ad ſeſe vocet*, ex quo verſum iſtum proverbialem factum ait:

Κακὰ
Ἐφ' ἑαυτὸν ἕλκων ὡς ὁ Καικίας νέφος.

[6] Νέφεσι δὲ πυκνοῖσι τὸ ἐρανὸν, Καικίας μὲν σφόδρα, Λίψ δ' ἀραιοτέρως· Καικίας μὲν διά τε τὸ ἀνακάμπτειν πρὸς αὑτὸν, καὶ διὰ τὸ κοινὸς εἶναι Βορέου καὶ Εὔρου. Ὥστε διὰ μὲν τὸ ψυχρὸς εἶναι πηγνὺς τὸ ἀτμίζον τὰ ἀέρα, εἰς νέφη συνίσησι· διὰ δὲ τὸ τῷ τόπῳ ἀπηλιωτικὸς εἶναι, ἔχει πολλὴν ὕλην καὶ ἀτμίδα, ἣν προσφθεῖ. *Ariſtot.* ut ſupra.

them.

them. I obſerved in the port of *Latikea*, that, during the continuance of theſe winds, there was two foot leſs depth of water, than ſome days afterwards, when the weather was moderate, and the winds blew ſoftly from the weſt. And it is very probable, that the remarkable receſs of water, in the ſea of *Pamphylia*, that has been taken notice of by *Joſephus* and others [7], may be accounted for from the ſame cauſe, operating only in an extraordinary manner.

Ships appear magnified in eaſterly winds.

It may be further obſerved, with regard to theſe *Levanters*, that veſſels or other objects which are ſeen at a diſtance, appear to be vaſtly magnified, or to *loom*, in the mariners expreſſion. Neither is a ſuperſtitious cuſtom to be omitted, which I have ſeen practiſed more than once, by the *Mahometans*, during the raging of theſe and other tempeſtuous winds. For upon theſe occaſions, after having tied to the maſt, or enſign-ſtaff, ſome appoſite paragraph of their *Koran* [8], they collect money, ſacrifice a ſheep, and throw them both into the ſea; being perſuaded that they will thereby aſſwage the violence of the waves, and the fury of the tempeſt. We learn from *Ariſtophanes* and *Virgil* [9], that the *Greeks*, ſome thouſand years ago, made uſe of the ſame ceremony. The like tranſaction too, though after the ſtorm, is recorded by the prophet *Jonas*, i. 16.

The Mahometans *ſacrifice a ſheep to appeaſe a tempeſt.*

The winds from mount Libanus *exceeding cold.*

But to purſue the *Natural hiſtory* of this country. The mountains of *Libanus* are covered all the winter with ſnow; which, when the winds are eaſterly, affects the whole coaſt, from *Tripoly* to *Sidon*, with a more ſubtile and piercing cold, than what is known in our northern climates. Whereas the other maritime and inland places, either to the N. or S. of theſe mountains, enjoy a much milder temperature, and a more regular change in the ſeaſons.

The frequency of water-ſpouts.

In cloudy weather, eſpecially when the winds are tempeſtuous and blow (as they often do in theſe caſes, in ſeveral directions,) *water-ſpouts* are more frequent near the *Capes* of *Latikea*, *Greego*, and *Carmel*, than in any other part of the *Mediterranean*. Thoſe which I had the opportunity of ſeeing, ſeemed to be ſo many cylinders of water, fall-

[7] Vid. not. 3. p. 314.

[8] I had the curioſity once, to take down one of theſe ſcrolls, and found it to be of the ſame import with the latter part of our cviith *Pſalm*, viz. *Thoſe that go down to the ſea in ſhips, and occupy their buſineſs in great waters*, &c.

[9] Ἄγε, δέρα μέλαιναν, παῖδε, ἐξενέγκαῖς·
Τυφὼς γὰρ ἐκβαίνειν παρασκευάζεται. *Ariſtoph.* in *Ran.* Act. iii. Sc. ii.

——— Meritos aris mactavit honores:
Taurum Neptuno; taurum tibi, pulcher Apollo. *Virg. Æn.* iii. 118.

Nigram Hyemi pecudem, Zephyris felicibus albam.
Tres Eryci vitulos, & *Tempeſtatibus agnam*
Cædere deinde jubet. *Id. Ibid.* v. 772.

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ing down from the clouds; though, by the reflection, it may be, of theſe deſcending columns, or from the actual dropping of the water contained in them, they would ſometimes appear, eſpecially at a diſtance, to be ſucked up from the ſea. Nothing more perhaps is required to explain this *phænomenon*, than that the clouds ſhould be firſt of all crowded together; and then, that contrary winds, preſſing violently upon them, ſhould occaſion them to condenſe, and fall in this cylindrical manner. Surely they cannot be accounted for, according to *Lemery's* ſuppoſition [1], from ſubmarine earthquakes and eructations: neither will the *Siphonic* winds [2], if there be any ſuch, much better ſolve the difficulty.

A remarkable Ignis fatuus.

In travelling by night, in the beginning of *April*, through the valleys of *mount Ephraim*, we were attended, for above the ſpace of an hour, with an *ignis fatuus*, that diſplayed itſelf in a variety of extraordinary appearances. For it was ſometimes globular, or elſe pointed like the flame of a candle; afterwards it would ſpread itſelf, and involve our whole company in it's pale, inoffenſive light; then at once contract, and ſuddenly diſappear. But in leſs than a minute it would begin again to exert itſelf, as at other times; running along from one place to another, with great ſwiftneſs, like a train of gunpowder ſet on fire; or elſe it would ſpread and expand itſelf over more than two or three acres of the adjacent mountains; diſcovering every ſhrub and tree (*the thick buſhes*, *Pſ.* xxix. 9.) that grew upon them. The atmoſphere, from the beginning of the evening, had been remarkably thick and hazy; and the dew, as we felt it upon our bridles, was unuſually clammy and unctuous. I have obſerved at ſea, in the like diſpoſition of weather, thoſe luminous bodies, that ſkip about the maſts and yards of ſhips; which are called *Corpuſanſe* [3], by the mariners; and were the *Caſtor* and *Pollux* of the ancients. Some authors have accounted, particularly for the *ignis fatuus*, by ſuppoſing it to be occaſioned by ſucceſſive ſwarms of flying *glow-worms*, or other luminous inſects. But not to perceive or feel any of theſe inſects, even whilſt the light, which they are ſuppoſed to occaſion, ſpread itſelf round about us, ſhould induce us to account, both for this *phæ-*

[1] "When *hurricanes* come from thoſe places of the earth, which are under the "ſea, they raiſe the waters into prodigious pillars,—the ſame are called *ſpouts* at "ſea." *Lemery's* courſe of *chemiſtry*, ed. 4. p. 116.

[2] Τυφῶνας ἢ Σίφωνας καλεῖσι διὰ τὸ ὕδωρ πολλάκις ἀναπαῦσαι. *Olymp.* in *Ariſt. Meteor.*

[3] A corruption of *Cuérpo ſanto*, as this *meteor* is called by the *Spaniards*. *Plin.* l. ii. c. 37.

nomenon,

nomenon, and the other, from the received opinion of their being actually *meteors*, or a *ſpecies* of natural *phoſphorus*.

The firſt rains, in theſe countries, uſually fall about the beginning of *November*, the latter ſometimes in the middle, ſometimes towards the end of *April*. It is an obſervation, at or near *Jeruſalem*, that provided a moderate quantity of ſnow falls in the beginning of *February* [4], (whereby the fountains are made to overflow a little afterwards,) there is the proſpect of a fruitful and plentiful year: the inhabitants making, upon theſe occaſions, the like rejoicings [5] with the *Egyptians*, *upon the cutting of the Nile*. But during the ſummer ſeaſon, theſe countries are rarely refreſhed with rain [6]; enjoying the like ſerenity of air, that has been mentioned in *Barbary*. *The former and latter rains.*

Barley, all over the *Holy Land*, was in full ear in the beginning of *April*; and, about the middle of that month it began to turn yellow; particularly in the ſouthern diſtricts; being as forward near *Jericho*, in the latter end of *March*, as it was in the plains of *Acre*, a fortnight afterwards. But *wheat* was very little of it in ear, at one or other of thoſe places: and, in the fields near *Bethlehem* and *Jeruſalem*, the ſtalk was little more than a foot high. The *Boccôres* likewiſe, or *firſt ripe figs*, were hard, and no bigger than common plumbs; though they have then a method of making them ſoft and palatable, by ſteeping them in oil. According therefore to the quality of the ſeaſon, in the year 1722, the *firſt-fruits* could not have been offered at the time appointed; and would therefore have required the intercalating [7]. *The earing time.* *The* Boccôre *are hard and ſmall in* April.

[4] As the month of *February* is the uſual time at *Jeruſalem*, for the falling of ſnow, it might have been at that particular ſeaſon, when *Benaiah* is ſaid, (1 *Sam.* xxiii. 20.) *to have gone down and ſmote a lion, in the time of ſnow.*

[5] The rejoicings that were uſed upon theſe occaſions, ſeem to have been very great, even to a proverb; as we may infer from *Pſ.* iv. 7. *Lord, thou haſt put gladneſs in my heart, more than at the time when the corn and wine increaſed.*

[6] This known quality of the ſummer ſeaſon is appealed to, 1 *Sam.* xii. 17. *Is it not wheat harveſt to day? I will call unto the Lord, and he ſhall ſend thunder and rain*: which muſt have been looked upon as an extraordinary *phænomenon* at that time of the year.

[7] על שלשה סימנין מעברין את השנה, &c. *i. e.* Propter tres caſus intercalabant in anno; propter epocham anni ſolaris; propter fruges maturas; & propter fructus arborum. Si Judices animadvertiſſent nondum maturas eſſe fruges, ſed adhuc ſerotinas eſſe, neque fructus arborum, quibus mos eſt tempore paſchali florere; illis duobus argumentis nitebantur & intercalabant in anno. Ac quanquam Epocha anni antevertebat ſextam decimam menſis Niſan, tamen intercalabant, ut frumentum maturum eſſet, ex quo offerretur manipulus in XVI Niſan, & ut fructus florerent more omnium. — Judices computo inito ſciebant ſi *Tekupha Niſan* eſſet in ſextadecima Niſan aut poſt; & intercalabant in eo anno, mutato Niſan in *Adar geminum*, nimirum ut Peſach incideret in tempus frugum maturarum, *&c. Maimonid. apud J. Scalig. de Emendat. Temp.* l. ii. p. 104.

of

of the ואדר *Ve-adar*, and poſtponing thereby the *paſſover*, for, at leaſt, the ſpace of a month.

The ſoil and produce.

The ſoil both of the maritime and inland parts of *Syria* and *Phœnice*, is of a light loamy nature, little different from that of *Barbary*, and rarely requires more than one pair of beeves to plow it. Beſides all ſorts of excellent grain, and ſuch vegetable diet, as has been deſcribed in the fruit and kitchen gardens of *Barbary*, the chief produce of theſe countries is ſilk and cotton. The inhabitants ſend the eggs of the *ſilk worm*, as ſoon as they are laid, to *Cannobine*, or ſome other place of *mount Libanus*; where they are kept cool, without danger of hatching, till the mulberry buds are ready for them in the ſpring. The ſame caution is uſed at *Limeſole*, and other places which I have ſeen, in the iſland of *Cyprus*, by preſerving them upon *mount Olympus*, which they call *Jibbel Krim*, i. e. *The great mountain*. The whole œconomy and management of the *ſilk worm*, is at preſent ſo well known, that nothing need be added upon that ſubject.

Tobacco *cultivated at* Latikea.

Though the *corn*, which is produced near *Latikea*, is the beſt and the moſt early of that part of *Syria*, yet, of late, the inhabitants have neglected this branch of huſbandry, together with that of the vine, (for both which it was formerly famous [8],) and employ themſelves chiefly in the more profitable culture of *tobacco*. This is a very conſiderable, and indeed the only article of trade, which has in a few years, ſo greatly enriched this city, and the country round about it. For there is ſhipped off, every year, from hence to *Dami-ata* and *Alexandria*, more than twenty thouſand bales, to the no ſmall diminution of that branch of trade at *Salonica*.

The Holy Land *more fertil than* Syria *and* Phœnice.

The *Holy Land*, were it as well inhabited and cultivated as formerly, would ſtill be more fruitful than the very beſt part of the coaſt of *Syria* or *Phœnice*. For the ſoil itſelf is generally much richer; and, all things conſidered, yields a more preferable crop. Thus the *cotton* that is gathered in the plains of *Ramah*, *Eſdraelon*, and *Zabulon*, is in greater eſteem, than what is cultivated near *Sidon* and *Tripoly*; neither is it poſſible for *pulſe*, *wheat*, or grain of any kind, to be richer or better taſted, than what is commonly ſold at *Jeruſalem*. The barrenneſs, or ſcarcity rather, which ſome authors [9] may either igno-

[8] Vid. Not. 1. p. 261.

[9] *Michael (Villanovanus) Servetus*, in his edition of *Ptolemy*, *Lugd.* 1535. hath, in the deſcription which he annexes to the table of the *Holy Land*, the following words: *Scias tamen, Lector optime, injuria aut jactantia vana tantam huic terræ bonitatem fuiſſe adſcriptam, eo quod ipſa experientia mercatorum & peregre proficiſcentium, hanc incultam, ſterilem, omni dulcedine carentem deprimit. Quare Promiſſam terram pollicitam & non vernacula lingua laudantem pronuncies*, &c. Vid. *New memoirs of literature*, Vol. i.

rantly

rantly or maliciouſly complain of, does not proceed from the incapacity, or natural unfruitfulneſs of the country, but from the want of inhabitants, and from the great averſion likewiſe there is to labour and induſtry, in thoſe few who poſſeſs it. There are beſides, ſuch perpetual diſcords and depredations among the petty princes, who ſhare this fine country, that, allowing it was better peopled, yet there would be ſmall encouragement to ſow, when it was uncertain, who ſhould gather in the harveſt. Otherwiſe the *land is a good land*, and ſtill capable of affording to its neighbours the like ſupplies of *corn* and *oil*, which it is known to have done in the time of *Solomon*[1].

The mountainous country abounded with olive trees and vines.

The parts particularly about *Jeruſalem*, as they have been deſcribed to be, and indeed, as they actually are, rocky and mountainous, have been therefore ſuppoſed to be barren and unfruitful. Yet granting this concluſion, which however is far from being juſt, a kingdom is not to be denominated barren or unfruitful, from one ſingle portion of it, but from the whole. And beſides; the bleſſing that was given to *Judah*, was not of the ſame kind with the bleſſing of *Aſher* or of *Iſſachar*, that *his bread ſhould be fat*, or *his land ſhould be pleaſant*; but that *his eyes ſhould be red with wine, and his teeth ſhould be white with milk*, Gen. xlix. 12. *Moſes* alſo makes milk and honey (the chief dainties and ſubſiſtence of the earlier ages, as they ſtill continue to be of the *Bedoween Arabs*) to be *the glory of all lands:* all which productions are either actually enjoyed, or, at leaſt, might be obtained, by proper care and application. The plenty of *wine* alone is wanting at preſent. Yet we find from the goodneſs of that little, which is ſtill made at *Jeruſalem* and *Hebron*, that theſe barren rocks (as they are called) would yield a much greater quantity, provided the abſtemious *Turk* and *Arab* ſhould permit the vine to be further propagated and improved.

The quantity of wild honey.

Wild honey, which was part of St. *John Baptiſt's* food in the wilderneſs, may inſinuate to us the great plenty of it in thoſe deſerts; and that conſequently, by taking the hint from nature, and enticing the *bees* into hives and larger colonies, a much greater increaſe might be made

p. 26, &c. But among many other travellers, who have ſtrongly aſſerted the contrary, I ſhall ſubjoin the following obſervations of *P. de la Valle* upon this country, which agree exactly with mine. *Il paeſe, per donde caminavamo era belliſſima. Tutte collini, valli e monticelli fruttiferi. Le convalle de* Mambre *e a punto comme tutti gli altri paeſi diutorno, che quantunque montuoſi e ſaſſoſi ſono pero fertiliſſimi. Let.* xiii. *Le Montagne e Valli bien che ſiano alpeſtri ſono nondimeno tutte frutiffere per la diligenza degli agricoltori.* Id. *Let.* iii.

[1] *Solomon gave Hiram twenty thouſand meaſures of wheat for food to his houſhold, and twenty meaſures of pure oil: thus gave Solomon to Hiram year by year.* 1 Kings v. 11.

of it. Accordingly *Joſephus (Bell. Jud.* l. v. c. 4.) calls *Jericho* μελιτοτροφον χωρον. We find moreover, that *wild honey* was often mentioned in Scripture. *And all they of the land came to a wood, and there was honey upon the ground*; and *when the people were come to the wood, behold the honey dropped*, 1 Sam. xiv. 25, 26. *He made him to ſuck honey out of the rock*, Deut. xxxii. 14. *With honey out of the ſtony rock, have I ſatisfied thee*, Pſ. lxxxi. 16. *Diodorus Siculus* (l. xix.) ſpeaks of the μελι ἄγριον, that dropped from trees; which ſome have taken, perhaps too haſtily, for a honey-dew only, or ſome liquid kind of *manna*. Whereas *bees* are known to ſwarm, as well in the hollow trunks, and upon the branches of trees, as in the clifts of rocks; honey, therefore, may be equally expected from both places.

Mountains more proper for grazing than plains.

As the mountains likewiſe of this country abound, in ſome places, with *thyme*, *roſemary*, *ſage*, and *aromatic* plants [2] of the like nature, which the *bee* chiefly looks after; ſo they are no leſs ſtocked in others, with ſhrubs and a delicate ſhort graſs [3]; which the cattle are more fond of, than of ſuch as is common to fallow ground and meadows. Neither is the grazing and feeding of cattle, peculiar to *Judæa*; it is ſtill practiſed all over *mount Libanus*, the *Caſtravan* mountains, and *Barbary*; where the higher grounds are appropriated to this uſe, as the plains and valleys are reſerved for tillage. For, beſides the good management and œconomy, there is this further advantage in it, that the milk of cattle fed in this manner, is far more rich and delicious, at the ſame time, their fleſh is more ſweet and nouriſhing.

The mountains planted with olive trees and vines.

But even laying aſide the profits that might ariſe from grazing, by the ſale of butter, milk, wool, and the great number of cattle that were to be daily diſpoſed of, particularly at *Jeruſalem*, for common food and ſacrifices; theſe mountainous diſtricts would be highly valuable even upon other conſiderations; eſpecially if they were planted with *olive trees*; one acre of which is of more value than twice the extent of arable ground. It may be preſumed likewiſe, that the *vine* was not neglected, in a ſoil and expoſition [4] ſo proper for it to thrive in: but indeed, as it is not of ſo durable a nature as the *olive tree*, and

[2] *Hæc circum* [alvearia] *caſiæ virides, & olentia late*
Serpylla, & graviter ſpirantis copia thymbræ
Floreat: irriguumque bibant violaria fontem. Virg. Georg. iv. ver. 30.

[3] *At cui lactis amor, cytiſum, lotoſque frequentes*
Ipſe manu, ſalſaſque ferat præſepibus herbas. Virg. Georg. iii. ver. 394.
Si tibi lanicium curæ:
fuge pabula læta. Id. ibid. ver. 384.

[4] ——*Juvat Iſmara Baccho*
Conſerere, atque olea magnum veſtire Talurnum. Virg. Georg. ii. ver. 37.

requires

requires moreover a continual culture and attendance [5]; the ſcruple likewiſe, which the *Mahometans* entertain, of propagating a fruit that may be applied to uſes forbidden by their religion, are the reaſons perhaps, why there are not many tokens to be met with, except at *Jeruſalem* and *Hebron* [6], of the ancient vineyards. Whereas the general benefit ariſing from the *olive tree*, the longevity and hardineſs of it, have continued down, to this time, ſeveral thouſands of them together, to mark out to us the poſſibility, as they are undoubtedly the traces, of greater plantations. Now if to theſe productions we join ſeveral large plats of arable ground, that lie ſcattered all over the valleys and windings of the mountains of *Judah* and *Benjamin*, we ſhall find that the *lot*, (even of *theſe tribes*, which are ſuppoſed to have had the moſt barren part of the country,) *fell to them in a fair ground, and that* their's *was a goodly heritage.*

Several vales of arable ground.

The mountainous parts therefore of the *Holy land*, were ſo far from being inhoſpitable, unfruitful, or the refuſe of the *land of Canaan*, that, in the diviſion of this country, the mountain of *Hebron* was granted to *Caleb* as a particular favour, (*Joſh.* xiv. 12.) We read likewiſe, that, in the time of *Aſa*, this hill-country of *Judah* (2 *Chron.* xiv.

The mountains better inhabited than the valleys.

[5] *Jam vinctæ vites, jam falcem arbuſta reponunt,*
Jam canit extremos effœtus vinitor antes;
Sollicitanda tamen tellus, pulviſque movendus:
Et jam maturis metuendus Jupiter uvis.
Contra, non ulla eſt oleis cultura: neque illæ
Procurvam expectant falcem, raſtroſque tenaces,
Cum ſemel hæſerunt arvis. *Id. Ibid.* ver. 516.

[6] Beſides the great quantity of grapes and raiſins, that are, one or other of them, brought daily to the markets of *Jeruſalem*, and the neighbouring villages, *Hebron* alone ſends every year to *Egypt*, three hundred camel loads, (*i. e.* near two thouſand quintals) of the *Robb*, which they call دبس (דבש) *Dibſe*; the ſame word that is rendered ſimply *honey* in the Scriptures: particularly *Gen.* xliii. 11. *Carry down the man a preſent of the beſt things of the land, a little balm, and a little dipſe.* For honey, properly ſo called, could not be a rarity ſo great there, as *dipſe* muſt be, from the want of vineyards in *Egypt*. In *Lev.* ii. 11. *honey* ſeems to be of ſeveral ſorts; *Ye ſhall burn no leaven, nor any* kind of *honey in any offering.* For beſides *the honey of grapes, of bees*, and of the *palm*, or dates; the *honey of the reed* or *ſugar* might be of great antiquity. Thus יער *Cant.* v. 1. which we render the *honey-comb*, is by ſome interpreters taken for a *reed*, or the μέλι καλάμινον, or *mel arundinis*. *Strabo* mentions *ſugar* as a ſuccedaneum to the honey of bees: Εἴρηκε δὲ καὶ περὶ καλάμων, ὅτι ποιοῦσι μέλι, μελισσῶν μὴ ὄντων. lib. xi. Dioſcorid. l. ii. c. 104. Σάκχαρ· ἔδος μέλιτος ἐν Ινδίᾳ πεπηγότος, ἐν τῇ ἐνδαίμονι Ἀραβίᾳ εὑρισκόμενον ἐπὶ τῶν καλάμων.

Quique bibunt tenera dulces ab arundine ſuccos. *Lucan.*

Hebron has the title of *Hhaleel* خليل i. e. the *choſen* or *beloved* among the *Arabs*: where the (*Mag-gâr* مغار *el Mamra*) cave of *Mamre* or *Mackpelah*, (*Gen.* xxiii. 17.) is ſtill ſhewn, and is always lighted up with lamps, and held in extraordinary veneration by the *Mahometans*.

8.) muſtered *five hundred and eighty thouſand men of valour*; an argument, beyond diſpute, that the land was able to maintain them. Even at preſent, notwithſtanding the want there has been for many ages of a proper culture and improvement, yet the plains and valleys, though as fruitful as ever, lie almoſt intirely neglected, whilſt every little hill is crowded with inhabitants. If this part therefore of the *Holy land* was made up only, as ſome object, of naked rocks and precipices, how comes it to paſs, that it ſhould be more frequented, than the plains of *Eſdraelon*, *Ramah*, *Zabulon*, or *Acre*, which are all of them very delightful and fertil beyond imagination? It cannot be urged, that the inhabitants live with more ſafety here, than in the plain country: inaſmuch as there are neither walls nor fortifications to ſecure their villages or encampments; there are likewiſe few or no places of difficult acceſs; ſo that both of them lie equally expoſed to the inſults and outrages of an enemy. But the reaſon is plain and obvious; inaſmuch as they find here ſufficient conveniencies for themſelves, and much greater for their cattle. For they themſelves have here *bread to the full*; whilſt their cattle brouze upon richer herbage; and both of them are refreſhed by ſprings of excellent water, too much wanted, eſpecially in the ſummer ſeaſon, not only in the plains of this, but of other countries in the ſame climate. This fertility of the *Holy land*, which I have been deſcribing, is confirmed from authors of great repute; whoſe partiality cannot in the leaſt be ſuſpected in this account. Thus *Tacitus*, l. v. c. 6. calls it *uber ſolum*; and *Juſtin*, (*Hiſt.* l. xxxvi. c. 3.) *ſed non minor loci ejus apricitatis quam ubertatis admiratio eſt.*

The plants of Syria, &c.

I travelled in *Syria* and *Phœnice* in *December* and *January*, and therefore had not a proper ſeaſon for *botanical* obſervations. However the whole country looked verdant and chearful: and the woods particularly, which are chiefly planted with the *gall-bearing-oak*, (*gallæ Syriacæ* are taken notice of by *Vegetius*, *De re ruſtica*, ii. 62.) were ſtrewed all over with a variety of *anemones*, *ranunculuſſes*, *colchicas*, and *mandrakes*. Several pieces of ground near *Tripoly* were full of *liquorice*; and at the mouth of a famous *grotto* near *Bellmont*, there is an elegant *ſpecies* of the *blew lilly*, the ſame with *Moriſon's lilium Perſicum florens*. In the beginning of *March*, the plains particularly betwixt *Jaffa* and *Ramah* were every where planted with a beautiful variety of *fritillaries*, *tulips*, and other plants of that and of different claſſes. But there are uſually ſo many dangers and difficulties which attend a traveller through the *Holy land*, that he is too much haſtened to make many curious obſervations, or to collect the variety of plants, or the many other natural curioſities of that country.

The

The mountains of *Quarantania* afford a great quantity of yellow *polium*, and ſome varieties of *thyme*, *ſage*, and *roſemary*. The brook likewiſe of *Eliſha*, which flows from it, and waters the gardens of *Jericho*, together with it's plantations of *plum* [7] and *date* trees, has it's banks adorned with ſeveral *ſpecies* of *brooklime*, *lyſimachia*, *water-creſs*, *betony*, and other aquatic plants; all of them very nearly reſembling thoſe of our own iſland. And indeed the whole ſcene of vegetables, with the ſoil that ſupports them, has not thoſe particular differences and varieties, that might be expected in two ſuch diſtant climates. Neither do I remember to have ſeen or heard of any plants, but ſuch as were natives of other places. For the *balſam tree* no longer ſubſiſts; and the *muſa* [8], which ſome authors [9] have ſuppoſed to be the *dudaim*, or *mandrakes*, as we interpret it, is equally wanting; neither could it, I preſume, from the very nature and quality of it, ever grow wild [1] and uncultivated, as the *dudaim* muſt certainly have done. Others [2] again, as the *dudaim* (from דוד) are ſuppoſed to denote ſomething amiable or delightful, have taken them for *cherries*, and that the (*doudaï*) דודאי conſequently, which we interpret *baſkets*, *Jer.* xxiv. 1. were made of the *cherry* tree. But the ſame, with equal reaſon, might have been aſſerted of the *plum*, or of the *apricot*, or of the *peach*, or of the *orange* or *lemon*, which might have been as rare, and no leſs delightful, than the *cherry*; though it is more probable, that none of theſe fruits were known in *Judæa*, in thoſe early times, not having been propagated ſo far to the weſtward, till many ages afterwards. However, what the *Chriſtians* of *Jeruſalem* take at preſent for *dudaim*, are the pods of the *jelathon*; a leguminous plant peculiar to the corn fields; which, by the many deſcriptions I had of it, (for it was too early, when I was there to ſee it,) it ſhould be a *ſpecies* of the *winged pea*; probably the *hierazune* or the *lotus tetragonolobus*. In no ſmall conformity likewiſe with this account, the *melilotus odorata violacea* of *Moriſon*; the *lotus hortenſis odorata* of *C. B.* and the *lotus ſativa*, *odorata*, *flore cæruleo* of *J. B.* have been taken for the *dudaim*. It is certain that the bloom of all, or moſt of

The plants of the H. land.

The Dudaim.

[7] Of the fruit of this tree is made the oil of *Zaccone*. Vid. *Maundrell's Journ.* p. 86. Edit. 2. The tree is thus deſcribed, *Caſp. Bauh. Pin.* p. 444. *Prunus Hierichontica folio anguſto ſpinoſo.* Zaccon *dicitur, quia in planitie Hierichontis non longe ab ædibus* Zacchæi *creſcit.* Caſt.

[8] موز *Mouz*, commonly called the *Bananna* or *Plantain tree*.

[9] Vid. *Ludolphi Hiſt. Æthiop.* l. 1. cap. 9. & *Comment.* p. 139, &c.

[1] *And Reuben went in the days of wheat harveſt, and found mandrakes in the field, and brought them to his mother Leah.* Gen. xxx. 14.

[2] Vid. *Mat. Hilleri Hierophyticon*, in cap. *De dudaim.*

the

the leguminous plants, *yields a grateful ſmell*; *Cant.* vii. 13. a quality which they have ſo far at leaſt in common with the *dudaim*.

The middle of June the ſeaſon for figs.

The *boccôre*, which has before been mentioned, (p. 144.) was far from being in a ſtate of maturity in the latter end of *March*: for, in the Scripture expreſſion, *the time of figs was not yet*, (*Mark* xi. 13.) or not till the middle or latter end of *June*. The καιρὸς or *time* here mentioned, is ſuppoſed, by ſome authors, quoted by *F. Cluſius*, in his *Hiero-botanicon*, to be the *third year*; in which the fruit of a particular kind of *fig-tree* comes to perfection. But this *ſpecies*, if there is any ſuch, wants to be further known and deſcribed. *Dionyſius Syrus*, as he is tranſlated by Dr. *Loftus*, is more to the purpoſe. *It was not the time of figs*, becauſe ſays he, it was the month *Niſan*, when trees yielded bloſſoms, and not fruit. However it frequently falls out in *Barbary*, and we need not doubt of the like in this hotter climate, that, according to the quality of the preceding ſeaſon, ſome of the more forward and vigorous trees will now and then yield a few ripe figs, ſix weeks or more before the full ſeaſon. Something like this may be alluded to by the prophet *Hoſea*, ix. 10. when he ſays, he *ſaw their fathers as* (boccores) *the firſt ripe in the fig-tree at her firſt time*.

The ſummer-fig is not ripe till Auguſt.

When the *boccôre* draws nearer to perfection, then the *karmouſe*, the *ſummer-fig*, or *caricæ*, (the ſame that are preſerved) begin to be formed; though they rarely ripen before *Auguſt*: at which time there

The winter-fig hangs upon the tree till ſpring.

appears a third crop, or the *winter-fig* as we may call it. This is uſually of a much longer ſhape, and darker complexion than the *karmouſe*; hanging and ripening upon the tree, even after the leaves are ſhed; and, provided the winter proves mild and temperate, is gathered as a delicious morſel in the ſpring. We gather from *Pliny*, (l. xvi. c. 26.) that the *fig-tree* was *bifera*, or bore two crops of figs, *viz.* the *boccôre*, as we may imagine, and the *karmouſe*: though what he relates afterwards (c. 27.) ſhould inſinuate that there was alſo a winter crop. *Seri fructus per hiemem in arbore manent, et æſtate inter novas frondes et folia matureſcunt. Ficus alterum edit fructum* (ſays *Columella*, de Arb. c. 21.) *et in hiemem ſeram differet muturitatem.* It is well known, that the fruit of theſe prolific trees always precedes the leaves; and conſequently, when our Saviour *ſaw one of them*[3], in full vigour, *having leaves*, (*Mar.* xi. 13.) he might, according to the common courſe of nature, very juſtly *look for fruit*; and *haply* find ſome *boccores*, if not ſome *winter-figs* likewiſe upon it.

[3] Talis arbor erat Judaicus populus: ſolis foliis luxuriabat ceremoniarum, et hypocriticæ ſanctimoniæ: fructus nulli, &c. Vid. *J. Henr. Urſini arboretum*.

Several parts of the *Holy land*, no leſs than of *Idumæa*[4], that lay contiguous to it, are deſcribed by the ancients, to abound with *date* trees. *Judæa* particularly is typified, in ſeveral coins of [5] *Veſpaſian*, by a diſconſolate woman ſitting under a *palm* tree. Upon the *Greek* coin likewiſe of his ſon *Titus*[6], ſtruck upon a like occaſion, we ſee a ſhield, ſuſpended upon a *palm* tree, with a *Victory* writing upon it. The ſame tree, upon a medal of *Domitian*, is made an emblem of *Neapolis*[7], formerly *Sichem*, or *Naplôſa*, as it is now called; as it is likewiſe of *Sepphoris*[8] (*Phocas*[9] writes it Σεμφωρι) or *Saffour* according to the preſent name, the *metropolis* of *Galilee*, upon one of *Trajan's*. It may be preſumed therefore, that the *palm* tree was formerly very much cultivated in the *Holy land*. There are indeed ſeveral of them at *Jericho*[1], where there is the convenience they require, of being often watered: where likewiſe the climate is warm, and the ſoil ſandy, or ſuch as they thrive and delight in. But at *Jeruſalem*, *Sichem*, and other places to the northward, I rarely ſaw above two or three of them together; and even theſe, as their fruit rarely or ever comes to maturity, are of no further ſervice, than (like the *palm* tree of *Deborah*) to ſhade the retreats or ſanctuaries of their *Shekks*, as they might formerly have been ſufficient to ſupply the ſolemn proceſſions (ſuch as is recorded *John* xii. 13.) with branches. From the preſent condition and quality therefore of the *palm* trees, it is very probable (provided the climate and the ſea air ſhould, contrary to experience, be favourable to their increaſe) that they could never be either numerous or fruitful. The opinion [2] then, that *Phœnice* is the ſame with

The H. land typified by a palm tree.

Jericho alone abounds with it.

[4] *Primus* Idumæas *referam tibi*, Mantua, *palmas.* *Virg. Georg.* iii. ver. 12.
——*Arbuſtis palmarum dives* Idume. *Lucan.* lib. iii.
Frangat Idumæas *triſtis Victoria palmas.* *Mart. Ep.* l. xiii. *Ep.* 50.

[5] Vid. *Occonis Imperat. Roman. Numiſm. Mediobarb.* &c. 110, 111, 112, 113. *Amſt.* 1717.

[6] ΙΟΥΔΙΑΣ ΕΑΛΩΚΥΙΑΣ. *Victoria ſcribens in clypeo palmæ appenſo.* Vid. *Vaill. Numiſt. Imp. Rom. Græc.* p. 21.

[7] ΦΛΑΟΥΙ ΝΕΑΠΟΛΙ. CAMAP. L. AI. *Palma arbor. Id.* p. 24.

[8] ΣΕΠΦΩΡΗΝΩΝ. *Palma arbor. Id.* p. 30.

[9] Phocæ *Deſcrip. Syriæ apud L. Allatii* Συμμικτα.

[1] *Hierichus* palmetis conſita, fontibus irrigua. *Plin.* l. v. cap. 14. Ut copia, ita nobilitas in Judæa, nec in tota, *Hierichunte* maxime. *Id.* xiii. c. 4. Exuberant fruges, (*ſays* Tacitus, *ſpeaking of this country*) noſtrum in morem; præterque eas balſamum & palmæ: Hiſt. l. v. cap. 6. *Strabo* deſcribeth *Jericho* to be (πλεονάζον τῷ φοίνικι, l. xvi. p. 1106.) *abounding with date trees.* For, *the city of palm trees*, *Deut.* xxxiv. 3. *Judg.* i. 16. and iii. 13. is, in the *Targum*, the city of *Jericho*.

[2] Quod ad nomen attinet *Phœnices*, id a Palmis eſſe ductum mihi videtur veri ſimile; alii a *Phœnice* quodam id ducunt. *Reland. Palæſt.* p. 50. Palma arbor urbis (*Aradi*) eſt ſymbolum, quo pleræque *Phœniciæ* urbes utebantur, quod ΦΟΙΝΙΞ arbor provin-

a country

Phœnice *not so called from being a country of* palm trees.

a country of *date* trees, does not appear probable; for, provided such an useful and beneficial plant had ever been cultivated here to advantage, it would have still continued to be kept up and propagated, as in *Egypt* and *Barbary*.

The rocks upon the sea shore hewn into salt pans.

The vegetable kingdom being thus described, let us now pass on to give an account of such *rocks*, *fossils*, *fountains*, *rivers*, and *animals* as are the most remarkable. Now the *rocks*, in several places upon the coast of *Syria* and *Phœnice*, have been hollowed into a great number of troughs, two or three yards long, and of a proportionable breadth; intended originally for so many *salt-works*; where, by continually throwing in the sea-water to evaporate, a large quantity of salt would be gradually concreted. We see several of these contrivances at *Latikea*, *Antaradus*, *Tripoly*, and other places; which at present, notwithstanding the hardness of the rock, are most of them worn down to their very bottoms, by the continual dashing and friction of the waves.

The higher rocks are usually white and softer.

Above this bed of hard stone, in the neighbourhood particularly of *Latikea*, the rocks are of a soft chalky substance, from whence the adjacent city might borrow the name of Λευκὰ ἀκτὴ, or *the White promontory*. The *Nakoura*, formerly called the *Scala Tyriorum*, is of the same nature and complexion; both of them including a great variety of corals, shells, and other remains of the *deluge*[a]. Upon the *Castravan* mountains, above *Barroute*, there is another curious bed likewise of whitish stone, but of the slate-kind, which unfolds, in every fleak of it, a great number and variety of fishes. These, for the most part, lie exceedingly flat and compress, like the fossil *fern plants*, yet, at the same time, they are so well preserved, that the smallest strokes and lineaments of their fins, scales, and other specifical distinctions, are easily distinguished. Among these, I have a beautiful *specimen* of the *squilla*, which, though the tendereſt of the *crustaceous* kind, yet has not suffered the least injury from length of time, or other accidents.

Fossil fishes.

ciæ *Phœniciæ* nomen dederit. *Vaill.* de Urbib. p. 257. Of the same opinion was *Calisthenes*, according to the author of the *History of the world*, p. 205. But the most probable conjecture for the name, is as follows. "*Edom*, *Erythra*, and *Phœnicia*, are "names of the same signification; the words denoting a red colour: which makes "it probable that the *Erythreans*, who fled from *David*, settled in great numbers in "*Phœnicia*; i. e. in all the sea coasts of *Syria*, from *Egypt* to *Zidon*, and by calling "themselves *Phœnicians*, in the language of *Syria*, instead of *Erythreans*, gave the "name of *Phœnicia*, to all that sea coast, and to that only." Sir *Is. Newton's Chron.* p. 108, 109. *Bochart* very ingeniously supposeth the *Phœnices* to be a corruption of בְּנֵי עֲנָק *Beni Anak*, (*The children of Anak.*) Lib. i. *Chan.* cap. 1.

[a] See the catalogue in the COLLECTANEA.

The

The greateſt part of the mountains of *Carmel*, and thoſe in the neighbourhood of *Jeruſalem* and *Bethlehem*, are made up of the like chalky *ſtrata*. In the former we gather a great many hollow ſtones, lined in their inſides with a variety of ſparry matter, which, from ſome diſtant reſemblance, are ſaid to be petrified *olives*, *melons*, *peaches*, and other fruit. Theſe are commonly beſtowed upon pilgrims, not only as curioſities, but as antidotes againſt ſeveral diſtempers. The olives which are the *lapides Judaici* [a], as they are commonly called, have been always looked upon, when diſſolved in the juice of lemons, as an approved medicine againſt the ſtone and gravel: but little can be ſaid in favour of theſe ſuppoſed *melons* and *peaches*, which are only ſo many different ſizes of round hollow flint ſtones, beautified in the inſide with a variety of ſparry and ſtalagmitical knobs, which are made to paſs for ſo many ſeeds and kernels. Some little round *calculi*, commonly called *the Virgin's peas*; the chalky ſtone of the *grotto* near *Bethlehem*, called her *milk*; the *oil* of *Zaccone*; the *roſes* of *Jericho*; beads made of the *olive ſtones* of *Gethſemane*; with various curioſities of the like nature, are the preſents which *pilgrims* uſually receive in return for their charity.

Moſt of the rocks in the Holy land *of the like quality.*

Petrified olives, melons, &c.

In calm weather, ſeveral fountains of excellent water diſcover themſelves, upon the ſea-ſhore, below *Bellmont*. They are ſuppoſed to have their ſources at a league's diſtance to the eaſtward, near *Bellmont*, where there is a large cave, or *grotto*, as I have already obſerved, remarkable for a plentiful ſtream of water, that, a few yards after it diſcovers itſelf, is immediately loſt and diſappears. The cave itſelf is near half a mile long, and ſometimes fifty, ſometimes a hundred yards broad, vaulted, by nature, in ſuch a regular manner, as if art alone had been concerned in the performance. The *Ras el Ayn* near *Tyre*, the ſources of the *Kiſhon*, and the *ſealed fountain* of *Solomon* near *Bethlehem*, are of the ſame guſhing plentiful quality with the fountains of this *grotto*. *The Nahar el Farah*, or *The river of the Mouſe*, which has its ſources about a league to the N. E. of *Jeruſalem*, ſhould likewiſe here be taken notice of. The name of it might probably ariſe from this circumſtance, that it no ſooner begins to flow, than it is loſt under ground; and then riſing again, purſues its courſe in this manner, alternately running and diſappearing, till it arrives in the plains of *Jericho*, and empties itſelf into the *Jordan*. Yet, provided theſe foun-

The fountains and grotto *near* Bellmont.

The river of the Mouſe, &c.

[a] One of them will uſually ſerve for two doſes, diſſolving or corroding it firſt, in ſo much lemon juice as will juſt cover it; and afterwards drinking it up. *Proſper Alpinus* gives us another method, *Hiſt. Ægypt. Nat.* l. iii. cap. 6. Ægyptii *lapide* Judaico, *ex cote cum aqua ſtillatitia ex* ononidis *radicum corticibus detrito, utuntur ad calculos in renibus & in veſica comminuendos, atque ad urinam movendam.*

tains and rivulets here mentioned, together with the *Kardanah*, the *Kiſhon*, the brook of *Sichem*, that of *Jeremiah* or *Anathoth*, beſides a great many others that are diſperſed all over the *Holy land*, ſhould be united together, they would not form a ſtream in any degree equal to the *Jordan*; which, excepting the *Nile*, is by far the moſt conſiderable river, either of the coaſt of *Syria* or of *Barbary*. I computed it to be about thirty yards broad; but the depth I could not meaſure, except at the brink, where I found it to be three. If then we take this, during the whole year, for the *mean* depth of the ſtream (which, I am to obſerve further, runs about two miles an hour,) the *Jordan* will every day diſcharge into the *Dead-ſea*, about 6,090,000 tons of water. So great a quantity of water being daily received, without any viſible increaſe in the uſual limits of the *Dead-ſea*, has made ſome authors[4] conjecture, that it muſt be abſorbed by the burning ſands; others, that there are ſome ſubterraneous cavities to receive it; others, that there is a communication betwixt it and the *Sirbonic* lake; not conſidering that the *Dead-ſea* alone will loſe every day, near one third more in vapour, than what all this amounts to. For provided the *Dead-ſea* ſhould be, according to the general computation, ſeventy two miles long and eighteen broad; then, by allowing[5] 6914 tons of vapour for every ſquare mile, there will be drawn up every day, above 8,960,000 tons. Nay, further, as the heat of the ſun is of much greater activity here, than in the *Mediterranean*, exhaling thereby a greater proportion of vapour, than what has been eſtimated above, ſo the *Jordan* may, in ſome meaſure, make up this exceſs, by ſwelling more at one time than another, though, without doubt, there are ſeveral other rivers[6], particularly from the mountains of *Moab*, that muſt continually diſcharge themſelves into the *Dead-ſea*. For the *Dead-ſea* is not the only large expanſe of water, where the *equilibrium* betwixt the expence of vapour and the ſupply from rivers is conſtantly kept up. The like is common, without the leaſt ſuſpi-

The river Jordan.

The quantity of vapour raiſed from the Dead-ſea *in one day.*

The extent of it.

[4] *Rel. Palæſt.* p. 257-8. *Sandys's Trav.* p. 111.

[5] Vid. Dr. *Halley's* obſervations upon the quantity of vapour drawn from the *Mediterranean ſea.*

[6] *Galen.* apud *Reland.* ibid. p. 292. *Jacob. Cerbus*, ibid. p. 281. octo hos fluvios illabi monet in lacum *Aſphaltitem*. 1. *Jordanem*. 2. *Arnonem*. 3. Flumen cum *Arnone* de magnitudine certans, a monte regali procedens, attingens *Oronaim*. 4. Fluvium prope puteos bituminis & vallem ſalinarum. 5. Fluvium de *Cadeſbarne* venientem. 6. Fluvium ab *Artara* egreſſum, qui *Thecuam* irrigat. 7. *Cedronem*. 8. *Charith*, torrentem ex monte *Quarentano* ortum, & prope *Engaddim* in lacum *Aſphaltitem* ſe exonerantem. *Sanutus* (ibid. p. 280.) hos fluvios recenſet in lacum *Aſphaltitem* illabi. *Arnonem* alium, qui in principio Mare mortuum intrat: alium, qui novem leucis inde Mare mortuum ingreditur.

cion

cion of any ſubterraneous outlets, to the *Caſpian-ſea*, and to an infinite number of extenſive lakes, all over the globe. For all and every one of theſe, by receiving as much water from their reſpective rivers, as they loſe in vapour, will preſerve, as near as can be expected, their uſual limits and dimenſions: the Almighty providence *having given to them*, no leſs than to the elements, *a law which ſhall not be broken*, (*Pſ.* cxlviii. 6.) *Which hath ſaid* (*Job* xxxviii. 11.) *to the ſea, Hitherto ſhalt thou come and no further; and here ſhall thy proud waves be ſtaid.*

Its bitumen *or* aſphaltus *and ſulphur.*

I was informed, that the *bitumen*, for which this lake has been always remarkable, is raiſed, at certain times, from the bottom of the lake, in large hemiſpheres; which, as ſoon as they touch the ſurface, and are thereby acted upon by the external air, burſt, at once, with great ſmoke and noiſe, like the *pulvis fulminans* of the chemiſts, and diſperſe themſelves into a thouſand pieces. But this only happens near the ſhore; for, in greater depths, the eruptions are ſuppoſed to diſcover themſelves in ſuch columns of ſmoke, as are now and then obſerved to ariſe from the lake. And perhaps to ſuch eruptions as theſe, we may attribute that variety of pits and hollows (not unlike the traces of ſo many of our ancient lime-kilns) which are found in the neighbourhood of this lake.

The quality of them.

The *bitumen* is, in all probability, accompanied from the bottom with *ſulphur*, as both of them are found promiſcuouſly upon the ſhore; the latter is exactly the ſame with common native ſulphur; the other is friable, and heavier than water; yielding, upon friction, or by being put into the fire, a fœtid ſmell. Neither does it appear to be, as *Dioſcorides* deſcribes his *aſphaltus* [7], of a purpliſh colour, but is as black as *jet*, and exactly of the ſame ſhining appearance.

The variety of game.

Game of all kind, ſuch as *buſtard*, *partridge*, *francoleens*, *woodcocks*, *ſnipes*, *teal*, &c. *hares*, *rabbits*, *jackalls*, *antilopes*, &c. are in great plenty all over theſe countries. The method made uſe of in taking them, is either by *courſing* or *hawking*. For which purpoſe, whenever the *Turks* and *Arabs* of better faſhion travel, or go out for diverſion, they are always attended with a number of *hawks*, and *grey-hounds*. Theſe are uſually ſhagged, and larger than thoſe of *England*; whereas the *hawks* are generally of the ſame ſize and quality with our *goſs-hawks*, being ſtrong enough to pin down a *buſtard* to the ground; and artful enough to ſtop an *antilope* in full career. This they perform, by ſeizing the animal, firſt by the head; and making afterwards with their

[7] Ασφαλτος διαφέρει ἡ Ιουδαϊκὴ τῆς λοιπῆς· Εστι δὲ καλὴ ἡ πορφυροειδῶς στίλβουσα, εὔτονος τῇ ὀσμῇ καὶ βαρεῖα. Ἡ δὲ μέλαινα καὶ ῥυπώδης φαύλη. *Dioſcorid.* l. i. cap. 100.

wings a continued fluttering over its eyes, they perplex, and thereby ſtop and retain it ſo long, till the grey-hounds come up and relieve them.

The ſkinkôre. But the only curious animals that I had the good fortune to ſee, were the *ſkinkôre*, and the *daman Iſrael*; both of which have been already delineated [9], though neither of them is well deſcribed. The former, which are found in plenty enough in a fountain near *Bellmont*, are of the *lizard* kind, all over ſpotted, and differ from the common *water-efts*, in the extent and faſhion of their fins. Theſe, in the *male*, commence from the tip of the noſe, and running the whole length of the neck and back, to the very extremity of the tail, are continued afterwards along the under-part of the tail, quite to the navel; whereas the tails only of the *female* are finned. The body and tail of this animal are accounted great provocatives, and are therefore purchaſed by the *Turks* at an extravagant price.

The daman Iſrael, *the* ſaphan *of the Scriptures.* The *daman Iſrael* [1] is an animal likewiſe of *mount Libanus*, though common in other places of this country. It is a harmleſs creature, of the ſame ſize and quality with the *rabbet*; and with the like incurvating poſture and diſpoſition of the fore-teeth. But it is of a browner colour, with ſmaller eyes, and a head more pointed, like the *marmots*. The fore-feet likewiſe are ſhort, and the hinder are nearly as long in proportion, as thoſe of the *jerboa* [2]. Though this animal is known to burrough ſometimes in the ground; yet, as its uſual reſidence and *refuge* is in the holes and clifts of the rocks, we have ſo far a more preſumptive proof, that this creature may be the *ſaphan* of the Scriptures, than the *jerboa*. I could not learn why it was called *daman Iſrael*, i. e. *Iſrael's lamb*, as thoſe words are interpreted.

The inhabitants of this country. Beſides *Greeks*, *Maronites*, and other ſects of *Chriſtians*, that inhabit this country, there are *Turks*, *Turkmans*, *Arabs*, *Souries*, and *Druſes*. Of theſe, the *Turks* are maſters of the cities, caſtles, and garriſons: the *Turkmans* and *Arabs* poſſeſs the plains (the latter living, as uſual, in tents; the other in moveable hovels.) The *Souries*, (the deſcendents probably of the *indigenæ*, or original *Syrians*,) cultivate the greateſt part of the country near *Latikea* and *Jebilee*; whilſt the

[9] Vid. *Theſaur. Rer. Natural. Alberti Sebæ*, p. 22. Vol. i. Pl. 14. fig. 1. & p. 67. Pl. 41. fig. 2. The firſt exhibits the figure of the *ſkinkôre*, calling it *Lacertus Africanus dorſo pectinato, amphibios mag. Fœmina pectinata caret pinna in dorſo.* The latter gives us the figure of the *Cuniculus Americanus*, which is very like our *daman Iſrael.*

[1] Animal quoddam humile, cuniculo non diſſimile, quod *agnum filiorum Iſrael* nuncupant. *Proſp. Alpin. Hiſt. Nat. Ægypt.* pars i. cap. 20. p. 80. & l. iv. cap. 9.

[2] Vid. ſupra, p. 177.

Druſes

Druſes maintain a kind of ſovereignty in the *Caſtravan* mountains, particularly above *Baroute*.

As far as I could learn, the *Druſes* and the *Souries* differ very little in their religion; which, by ſome of their books, written in the *Arabic* language, that I brought with me, appears to be a mixture of the *Chriſtian* and *Mahometan*; the *Goſpels* and the *Koran* being equally received, as books of divine authority and inſpiration. For to omit, what is commonly reported, by the other inhabitants of this country, of their being circumciſed; of their worſhiping the riſing and ſetting ſun; of their inter-marrying with their neareſt relations, and making their children paſs through the fire; we may well conclude, from their indulging themſelves in wine and ſwines fleſh, that they are not ſtrict *Mahometans*; as the *Chriſtian* names of *Hanna*, *Youſeph*, *Meriam*, &c. (i. e. *John*, *Joſeph*, *Mary*, &c.) which they are uſually called by, will not be ſufficient proof of their being true *Chriſtians*. The *Druſes* are probably the ſame with the ΧΑΕΤΕΙΟΙ of *Phocas*, whom he places in this ſituation, and deſcribes [3] to be neither *Chriſtians* nor *Mahometans*, but a mixture of both.

The religion of the Souries *and* Druſes.

CHAP. II.

Phyſical and miſcellaneous obſervations in Egypt.

SECT. I.

Of the ſymbolical learning of the Egyptians.

FROM *Syria* and *Paleſtine*, let us now carry on our *phyſical* and miſcellaneous inquiries into *Egypt*. Here we have a large and inexhauſtible fund of matter, which has engaged the ſtudies and attention of the curious, from the moſt early *records of hiſtory*. For beſides the great variety of arts and ſciences that were known to the *Egyptians*, we read of no other nation that could boaſt of the like number, either of natural or artificial curioſities. It was the fame and reputation, which *Egypt* had acquired, of being the ſchool and repoſitory of theſe ſeveral branches of knowledge and ingenuity, that engaged *Orpheus*, *Pythagoras*, and other perſons of the firſt rank in

Egypt *the ſeat of learning.*

[3] Vid. *Phocæ Deſcript. Syriæ, apud L. Allatii* Συμμικτα.

anti-

antiquity [3], to leave their own countries to be acquainted with this. These philosophers likewise were so artful, in the first introducing of themselves [4]; they complied so readily afterwards with the customs of the country [5]; and were so happy in addressing themselves to the persons [6] who were to instruct them, that, notwithstanding the hatred, jealousy, and reservedness [7], which the *Egyptians* entertained towards strangers, they generally returned home with success, and brought along with them, either some new religious rites, or some useful discoveries.

Greece *received from thence her theology, arts,* &c.

Thus *Herodotus* [8] acquaints us, that the *Greeks* borrowed all the names of their gods from *Egypt*; and *Diodorus* [9], that they not only derived from thence their theology, but their arts and sciences likewise. For, among other instances, he tells us, that the ceremonies of *Bacchus* and *Ceres*, who were the same with *Osiris* and *Isis*, had been introduced very early among them by *Orpheus:* that from the same source, *Pythagoras* received the doctrine of the *transmigration of souls*; *Eudoxus* and *Thales* [1] received *mathematics*; and *Dædalus architecture*, *sculpture*, and other ingenious arts. According to the same author [2], *Greece* was further obliged to *Egypt*, not only for *physic* and *medicines* [3], but for a great many *laws*, *maxims*, and *constitutions of polity*, which had been introduced among them by *Plato*, *Solon*, and *Lycurgus*. Even their more abstracted learning, such as related to the essence of the deity, to the power and combination of *numbers*, to their ΜΟΝΑΣ [4] and ΤΡΙΑΣ, with other disquisitions of the like abstracted nature, seem to have been transcribed from thence into the works of *Plato* and *Pythagoras*.

None of the Egyptian hieroglyphics *translated into* Greece.

Their *symbolical learning* alone, either as it was conveyed, in sculpture upon their *obelisks*, &c. or in colours and painting upon the walls of their *cryptæ* [5], *mummy-chests*, *boxes* for the sacred animals, *&c.* ap-

[3] Such were *Musæus*, *Melampus*, *Dædalus*, *Homer*, *Lycurgus*, *Solon*, *Plato*, *Democritus*, &c. Vid. *Diod. Sic.* l. i. p. 53.

[4] It might be for this reason, that *Plato*, &c. took upon him the character of an oil merchant; oil being always a welcome commodity to *Egypt*. *Plut. Solon.* p. 79. Ed. Par.

[5] *Clemens Alexandrinus* acquaints us, that *Pythagoras* was circumcised, in order to be admitted into their *Adyta*; Vid. *Strom.* Ed. Pott. l. i. p. 354. [6] *Id. ibid.* p. 356.

[7] *Id.* l. v. p. 670. *Just. Mart. Quæst.* 25. *ad Orthod.* [8] *Herod. Eut.* p. 50.

[9] *Diod. Sic. Bib.* l. i. p. 96. [1] *Diog. Laert.* l. i. in *vita Thal. Clem. Alex. Strom.* l. i. p. 221. [2] *Diod. Sic.* ut supra. [3] *Homer. Odyss.* Δ. ver. 227.

[4] *Zoroast.* apud *Kirch. Oedip. Ægypt.* Synt. i. p. 100.

[5] Several of these *cryptæ*, painted with symbolical figures, are seen near the pyramids. *Chrysippus's antrum Mithræ* seems to have been of the same kind. Τὰ τείχεα τοῦ σπηλαίου πάντα ποικίλοις εἴκοσι κοσμούμενα, καὶ τὰ τῶν θεῶν, οὓς μεσίτας καλοῦσι, ἀγάλματα περιεστάμενα.

pears

pears not to have been known in *Greece*; though, among the antiquities of *Hetruria* [6], we meet with ſome faint imitations of it; enough perhaps to prove, either that this nation was originally related to *Egypt*; or that *Pythagoras*, or ſome of his ſchool, introduced it among them. However, though none of the *Grecian* travellers have carried into their own country the figures and ſymbols themſelves; yet *Diodorus* in particular, in conjunction with *Porphyry*, *Clemens Alexandrinus*, and other authors, has obliged us with the deſcription and interpretation of ſome of the moſt remarkable of them. Yet, as a proper and faithful key is wanting to the whole ſcience, the purport and deſign of any ſingle *ſpecimen* of it muſt ſtill remain a ſecret; it muſt, at leaſt, be exceedingly dubious, uncertain, and obſcure.

The difficulty to underſtand them.

Now, from what is preſumed to be already known of this *ſymbolical learning*, it is ſuppoſed, that the *Egyptians* chiefly committed to it, ſuch things as regarded the being and attributes of their gods [7]; the ſacrifices and adorations that were to be offered to them; the concatenation of the different claſſes of beings; *rerum naturæ interpretatio*, according to *Pliny* [8]; the doctrine of the elements, and of the good and bad *dæmons*, that were imagined to influence and direct them. Theſe again were repreſented by ſuch particular animals [9], plants, inſtruments, *&c.* as they ſuppoſed, or had actually found, by a long courſe of experiments and obſervations, to be emblematical of, or to bear ſome typical, or phyſical relation to, them. Every portion therefore of this *ſacred writing* may be preſumed to carry along with it ſome points of doctrine, relating to the theology or phyſics of the *Egyptians*; for hiſtoric facts do not ſeem ſo well capable of being conveyed or delivered in theſe figures and ſymbols.

What branches of learning were recorded in this ſacred writing.

[6] Vid. Tabb. *Dempſt. Hetruriæ Regalis*, 19, 26, 35, 39, 47, 63, 66, 77, 78, 88. —*Symbolicum* appello, cum quid colitur, non quia creditur Deus, ſed quia Deum ſignificat.—Quomodo ſol cultus in igne *Veſtali*, *Hercules* in ſtatuâ, &c. *G. J. Voſſ. de Idololol.* l. i. cap. 5.

[7] *Hieroglyphica Ægyptiorum* ſapientia, teſtantibus omnibus veterum ſcriptorum monumentis, nihil aliud erat, quam ſcientia de Deo, diviniſque virtutibus, ſcientia ordinis univerſi, ſcientia intelligentiarum mundi præſidum, quam *Pythagoras* & *Plato*, notante *Plutarcho*, ex *Mercurii* columnis, *i. e.* ex obeliſcis, didicerunt. *Kirch. Oed. Ægypt.* tom. iii. p. 567. *Ægyptii* per nomina Deorum univerſam rerum naturam, juxta theologiam naturalem, intelligebant. *Macrob. Sat.* l. i. cap. 20.

[8] *Plin. Nat. Hiſt.* l. xxxvi. c. 9.

[9] According to an old obſervation, the great principle upon which the *ſymbolic* method of philoſophizing was grounded, was this, τὰ αἰσθητὰ τῶν νοητῶν μιμήματα. *Jamblichus* gives us a fuller reaſon of this way of writing. Vid. *Jamblichus de Myſt.* Sect. vii. cap. 1. *Ger.* and *Joan. Voſſius de Idololat.* l. i. *Porphyr. apud Euſeb. De præpar. Evang. Plutar. de Iſide & Oſiride*, p. 380. Ipſi, qui irridentur Ægyptii, nullam belluam, niſi ob aliquam utilitatem, quam ex ea caperent, conſecraverunt. *Cic. de Nat. Deor.*

In

Oſiris's *ſymbols were*

In order therefore to give a few inſtances of this myſtical ſcience, I ſhall begin with ſuch of their ſacred animals, as were ſymbolical of their two principal deities, *Oſiris* and *Iſis*; who were the ſame with *Bacchus* and *Ceres*; the *ſun* and the *moon*; or the *male* and *female* parts of nature [1]. The *ſerpent* [2] therefore, ſometimes drawn with a turgid neck [3], as it was obſerved to be an animal of great life and ſprightlineſs; moving along with many winding, circulatory gyrations, and waxing young again, every year, by the caſting and renewing of its ſkin, ſo it was one of the ſymbolical repreſentations of the ſun. The *beetle* [4] was alſo ſubſtituted for the ſame deity; inaſmuch as, among other reaſons, all the inſects of this tribe were ſuppoſed to be males; that, in imitation of the ſun's continuing ſix months in the winter ſigns, they continued the ſame time under ground; and again, in conformity alſo to the ſun's motion, after having incloſed their *embryos* in balls of dung, they rolled them along, (with their faces looking the contrary way.) The *hawk* [5] (the *thauſtus*, and *baieth* as the *Egyptians* called it) was another ſymbol, being a bird of great ſpirit and vivacity; having a moſt piercing eye, looking ſtedfaſtly upon the ſun, and ſoaring, as they imagined, into the very region of light. In like manner, the *wolf* [6], upon account of its penetrating ſight and voracity, was another emblem; as were alſo the *lion* [7], and the *gooſe* [8]; both of them moſt watchful animals; the former whereof was ſuppoſed to ſleep with his eyes open. To theſe we may add the *crocodile* [9], which, like the ſupreme being, had no need of a tongue, and lived the ſame number of years as there were days in the year. And again, as *Oſiris* was the *Nile*, he was typified alſo, in that reſpect, by the *crocodile*, which otherwiſe was looked upon as a ſymbol of

the ſerpent.

The beetle.

The hawk.

The wolf.

The lion *and the* gooſe.

The crocodile.

[1] *Plut. De Iſid. et Oſirid.* p. 372, 363, & 366. *Euſeb. Præp. Evang.* p. 52. Lut. 1544. *Macrob. Sat.* l. i. cap. 20.

[2] *Euſeb.* ut ſupra, p. 26. *Plut. De Iſid. et Oſirid.* p. 381. *Macrob. Sat.* l. i. cap. 20. et cap. 17. unde *Euripides*,

Πυριγενὴς ὃ δράκων ὅλον ἡγεῖται ταῖς τ' ἑαμόςφοις
Ὡραις ζευγνὺς ἀιμονίᾳ πολύκαρπον ὄχημα.

[3] Aſpida ſomniferam tumida cervice levavit. *Lucan.* l. ix. *Apul. Met.* l. xi. p. 258. & 262. *Solin. Polyhiſt.* l. xl. De aſpide.

[4] *Plut. de Iſid. et Oſirid.* p. 355 & 381. *Porphyr. apud Euſeb. præp. Evang.* p. 58. *Clem. Strom.* l. v. p. 657. *Horap. Hierog.* l. i. cap. 10.

[5] *Ælian. Hiſt. Anim.* l. x. cap. 14 & 24. *Horap. Hierogl.* l. i. cap. 7. *Clem. Strom.* l. v. p. 671. *Plut. de Iſid. et Oſirid.* p. 371. *Porphyr. apud Euſeb. Præp. Evang.* p. 70. [6] *Macrob. Sat.* l. i. cap. 17. [7] *Horap. Hierog.* l. i. cap. 17 & 19.

[8] *Plin.* l. x. cap. 22. *Kirch. Oedip. Ægypt.* Synt. 3. p. 242.

[9] *Achill. Tatius* l. iv. De crocod. Vid. ſupra, p. 351. n. 7. *Diod. Sic. Bib.* l. i. p. 21-2. *Plut. de Iſid. et Oſiride*, p. 381. *Ælian. Hiſt. Anim.* l. x. cap. 24.

impu-

impudence [1]; of an evil *Dæmon* [2]; and of *Typhon* [3]; who was always ſuppoſed to act contrary to the benign influences of *Iſis* and *Oſiris*. However the *bull* [4], the *apis* [5] or *Mnevis*, and *the fruitful deity of the all-teeming earth*, as *Apuleius* calls it, was the principal ſymbol of *Oſiris*. It was accounted ſacred, for the great benefit and ſervice that it was of to mankind; and becauſe, after *Oſiris* was dead, they ſuppoſed his ſoul to have tranſmigrated into it. [6] *The* bull.

The *bull* was likewiſe one of *Iſis's* ſymbols; who was alſo repreſented by the *ibis* [7] and the *cat* [8], the former whereof brings forth, in all, the ſame number of eggs, the latter of young ones, as there are days in one period of the *moon*. The mixture alſo of black and white feathers in the plumage of the one, and of ſpots in the ſkin of the other, were ſuppoſed to repreſent the diverſity of light and ſhade in the *full moon*; as the contraction and dilatation in the pupil of the *cat's* eye, were looked upon to imitate the different *phaſes* themſelves of that luminary. The *dog* [9] and the *cynocephalus* [1] were other ſymbols of this goddeſs; the *dog*, as it was a vigilant creature, kept watch in the night, and had been of great aſſiſtance to her, in ſearching out the body of *Oſiris*; the *cynocephalus*, as the females of this *ſpecies* had their monthly purgations, and the males were remarkably affected with ſorrow and abſtained from food, when the *moon* was in conjunction with the *ſun*. Iſis's *ſymbol, were the* ibis *and the* cat. *The* dog, *and the* cynocephalus *or* baboon.

Theſe were ſome of the principal animals, which the *Egyptians* accounted ſacred, and ſubſtituted in the place of their deities; *not that they directly worſhiped them*, as *Plutarch* [2] obſerves, *but adored the divinity only that was repreſented in them, as in a glaſs, or*, as he expreſſeth it in another place, *juſt as we ſee the reſemblance of the ſun in drops of water*. But *Lucian* [3] has recorded ſomething more extraordinary, with regard to the introduction of theſe animals into their theology. For he informs us, that *in the wars between the gods and the giants, the former, for ſafety, fled into Egypt, where they aſſumed the bodies of beaſts and birds, which they ever afterwards retained, and were accordingly worſhiped and reverenced in them.* *The* Egyptians *did not worſhip theſe animals.*

Beſides theſe animals, there are others alſo, which the *Egyptians* received among their ſacred ſymbols. Such, among the birds, was the *owl* [4], which generally ſtood for an evil *Dæmon*: as the *cor-* *The* owl.

[1] *Clem. Alex. Strom.* l. v. p. 670. [2] *Diod. Sic.* l. iii. [3] *Plut. de Iſid. et Oſiride*, p. 366-9 and 371. [4] *Diod. Sic.* l. i. p. 54. [5] Id. ibid. p. 13. [6] *Apul. Met.* l. xi. p. 262. [7] *Clem. Strom.* l. v. p. 671. *Plut. de Iſid. et Oſiride*, p. 381. *Pignor. Menſ. Iſ. Exp.* p. 76. [8] *Plut. de Iſid. et Oſirid.* p. 376. [9] *Plut. de Iſid. et Oſiride*, p. 356. [1] *Horap. Hierogl.* l. i. cap. 14, 15, 16. [2] *Plut.* ut ſupra. p. 380-2. [3] *Lucian. de Sacrif.* p. 5. [4] *Hecat. apud Malchum. Abeneph. apud Kirch. Obel. Pamph.* p. 317.

The cornix *or* jack daw, *and the* quail *or* rail. *nix* [5] did for concord; and the *quail*, for impiety [6]: alledging these reasons, that *Typhon* had been transformed into the first; that the second kept constantly to its mate; whilst the latter was supposed to offend the deity with its voice.

The hoopoe. The *upupa* [7], from being dutiful to its aged parents, was an emblem of gratitude; or else (upon account of its party-coloured plume) of the variety of things in the universe.

The Guinea hen *or* pintado. The same quality was supposed to be denoted by the *meleagris* [8]: though *Abenephius* [9] makes it to represent the starry firmament. Both

The goat. these birds are still well known in *Egypt*. By the *goat*, their *Mendes* [1] or *Pan*, was understood the same generative faculty and principle, that

The river. horse. was expressed by the *phallus* [2]. By the *hippopotamus* [3], they either typified impudence, from the cruelty and incest which this creature was supposed to be guilty of; or else *Typhon*, i. e. the west, which devours and drinks up the *sun*. An *embryo*, or the imperfect productions of

The frog. nature, were expressed by the *frog* [4]; an animal which appears in different shapes, before it arrives to perfection, and was supposed to

A fish. be ingendred of the mud of the *Nile*. *A fish* [5], says *Plutarch*, *was typical of hatred, because of the sea*, i. e. *Typhon*, wherein the *Nile* is

The butterfly. lost and absorbed. The *butterfly* [6], from undergoing a variety of transformations, was, according to *Kircher*, expressive of the manifold power and influence of the deity. The same author calls it, *papilio dracontomorphus*, and, at the same time, very justly observes, that the *thyrsus papyraceus*, or *junceus*, or *bearded bullrush*, is usually placed before it, typifying thereby the plenty and affluence which flows from the divine being.

The parts of animals were symbolical. Neither were these and such like animals, when whole and entire, made use of in their symbolical representations, but even the parts

Horns. likewise and members of them. Thus the *horns* of the *bull*, which are usually gilded [7], were typical both of the *horns* of the *moon* [8], and of the *beams* of the *sun* [9], according as they were placed upon the

The eye. head of *Isis* or *Osiris*. The *eye* [1] denoted foresight and providence; and,

[5] *Ælian. Hist. Animal.* l. iii. cap. 9. *Horap. Hierogl.* l. i. cap. 8 & 9. [6] *Hecat. apud Kirch. Ob. Pamphyl.* p. 322. *Horap.* l. i. cap. 49. ubi pro ὄξυγα legunt nonnulli ὄρτυγα. [7] *Horap.* l. i. cap. 55. *Kirch. Obel. Pamph.* p. 329. [8] *Kirch Oedip.* Synt. i. p. 91. [9] *Abeneph. apud Kirch. Oedip. Ægypt. Theatr. Hierogl.* p. 64.

[1] *Herod. Eut.* § 46. [2] *Diod. Sic.* l. i. p. 13 & 55. *Kirch. Oedip. Ægypt.* Synt. i. p. 152. [3] *Plut. De Isid. et Osiride*, 363. *Hecat. lib. De sacra philosoph. Porphyr. apud Euseb. de Præp. Evang.* p. 70. [4] *Horap.* l. i. cap. 26. *Pign. Mens. Is. Expl.* p. 48. [5] *Plut. de Isid.* &c. p. 363. [6] *Kirch. Oed. Ægypt.* Synt. ii. p. 183. & in *Obel. Pamphyl.* p. 500. [7] *Carmina Orphica apud Euseb. Præp. Evang.* p. 61. [8] *Clem. Strom.* l. v. p. 657. [9] *Macrob.* l. i. cap. 22. *Horat. Carm.* l. ii. Od. 19. *Aleand. Explic. Tab. Heliac.* p. 23. [1] *Diod. Sic.* l. iii. *Plut. de Isid. et Osiride*, p. 371.

being joined to a *ſceptre*, ſignified alſo the power of *Oſiris*. The *right hand*[2], with the fingers open, typified plenty; but by the *left*, were underſtood the contrary qualities. *Wings*[3] were emblematical of the ſwiftneſs and promptitude, which the *deities*, *genii*, and *ſacred perſons*, to whom they are given, may be ſuppoſed to make uſe of, for the ſervice of the univerſe. *The* hands. Wings.

But, beſides the parts already mentioned, we often ſee the heads of divers animals, either alone, or elſe fixed to a *rod*, or to the *body* of ſome other creature. By the firſt of which ſymbols, they probably typified the principal character of the creature[4] itſelf; by the other, the united characters of them both. Thus the head of the *hawk*, *ibis*, *lion*, *dog*, *&c.* is frequently joined to the human body; the head of a woman, or of a hawk, to the body of a lion; the head of *Orus*[5] (who is always repreſented young) to the body of a beetle; and the head of a hawk, to the body of a ſerpent. *Now*, according to *Pophyry*[6], *we are to underſtand by this mixture and combination of different animals, the extent of God's care and providence over all his creatures; and as we are all bred up and nouriſhed together, under the ſame divine power and protection, great tenderneſs and regard ought to be ſhewn to our fellow creatures.* *The head and bodies of different animals joined together.* *The reaſon of it.*

Of theſe compound ſymbolical repreſentations therefore, the human body[7] with the hawk's head, was typical of the firſt, incorruptible, eternal being. *Porphyry*[8] ſpeaks of an image of this kind that was of a white colour, whereby the *moon* was repreſented, as receiving her (pale) light from the *ſun*. When the head of the *ibis* was annexed, then it was their *Mercuribis*, or *Hermanubis*, preſiding, according to *Kircher*, over the element of water[9]. The like quality and character might be alſo implied, when they added the head of the lion[1], a creature that was typical of the *Nile's* inundation. No one figure certainly is more common than this; being uſually ſeen in a ſitting inclined poſture, as if cut ſhort by the legs, and was called *momphta*, the ſame with *emeph* or *hemphta*, as *Kircher* conjectures. The κεφαλοπρόσωπον[2], or human figure with a goat's head, expreſſed, among other things, the conjunction of the *ſun* and *moon* in the ſign *aries*. But when the head of the dog was affixed, then it was the *The human body with the* hawk's *head*, *with that of the* Ibis. *and the* lion. *The* Egyptian momphta. *The human figure with a* goat's *head*; *and* dog's *head*.

[a] *Diod.* ut ſupra. *Abeneph.* apud *Kirch. Obel. Pamphil.* p. 442. [3] *Clem.* l. v. p. 668. de *Cherubim.* [4] *Diod.* l. i. p. 39. *Kirch. Oed. Ægypt.* p. 214. & *Ob. Pamphyl.* p. 497. [5] *Kirch. Prodr. Copt.* p. 239. [6] *Porphyr. apud Euſeb. Præp. Evang.* p. 57. [7] *Id. ibid.* p. 70. [8] *Zoroaſt. ibid.* l. i. p. 27. [9] *Kirch. Obel. Pamphyl.* p. 348. [1] *Kirch. Oedip. Ægypt.* claſſ. 7. p. 155. [2] *Luſeb. Præp. Evang.* l. iii. p. 70.

Anubis or *Hermes* [3], representing the *horizon* [4] and guarding the hemispheres.

The sphinx.

The head of a woman, joined to the body of a lion, was called a *sphinx*; being, in general, an emblem of strength [5], united to prudence. When such figures were placed near the *Nile*, they denoted the inundation to fall out, when the *sun* passed through the signs of *Leo* [6] and *Virgo*; but when they adorned the portico's [7] and gates of their temples, then they signified, that the theology, taught and represented within, was cloathed in types and mysteries. The (*aspis* ἱερακόμορφος) serpent with a hawk's head [8], was the *agathodæmon* of the *Phœnicians*, and the *cneph* (*Kircher* likewise calls it the *thermutis*) of the *Egyptians*, being supposed to carry along with it greater marks of divinity [9] than any other symbolical figure whatsoever. We sometimes see an egg, the symbol of the world [1], issuing out of its mouth [2]; which the *Egyptians* maintain to be productive of the deity *ptha*, but the *Greeks*, of *Vulcan*; who were both the same according to *Suidas*. In like manner, the union of the heads and bodies of other different creatures may, according to their respective qualities, be presumed to represent so many *genii*; the heads, especially of the sacred animals, being added, as *Kircher* imagines [3], to strike terror into the evil *dæmons*. The skins of the dog and the wolf, which, *Diodorus* tells us [4], *Anubis* and *Macedon* put over their heads in the wars of *Osiris* (in order, as we may suppose, to excite fear in their enemies) will probably confirm this opinion of *Kircher*. *Diodorus* indeed gives us a different interpretation, and affirms, that it was owing to the wearing of these helmets, that those animals were esteemed and honoured by the *Egyptians*.

The serpent *with the* hawk's *head.*

The heads added to fright the evil dæmons.

Their symbolical plants.

The agrostis.

After these different *species* of animals, we are to take notice of some of the most remarkable *plants*, that were received into their sacred writing. Thus *Diodorus* tells us, that the *agrostis*, in token of gratitude [5], was carried in the hands of their votaries; but, as this is the general name for the *culmiferous plants*, it will be uncertain to which

[3] *Lucian. de Sacrif.* [4] *Plut. de Iside et Osiride*, p. 356. *Horap. Hierogl.* l. i. c. 14, 15, 16. *Diod. Sic.* l. i. p. 55. *Clem.* l. v. p. 413.

[5] Id. ibid. [6] *Horap. Hierog.* l. i. cap. 21. *Kirch. Obel. Pamph.* p. 286.

[7] *Plut. de Isid.* p. 354. *Clem.* l. lvii. p. 664. [8] *Euseb. Præp. Evang.* l. i. p. 26.

[9] Id. ibid. p. 27. [1] *Plut. Symp.* l. ii. p. 636. *Varro apud Probum in Eclog.* vi. *Scol. Idol.* l. i. cap. 5. [2] *Porphyr.* apud *Euseb. Præp. Evang.* l. iii. p. 69. *Suidas* in voce Φθάς. Suspicor vocem Κνὴφ esse μετὰ συγκοπὴν a כנף *canaph* vel *ceneph*, quæ notat alam, subinde etiam τὸ πτερωτὸν alatum. Sic vocitarunt hoc numen a symbolo, quod ex serpente & volucre componeretur. *G. J. Voss. de Idol.*

[3] *Kirch. Oed.* Synt. xviii. p. 516. [4] *Diod. Sic.* l. i. p. 11. [5] *Diod.* ut sup. p. 28.

of

of them we are to fix it. The plants likewise of the *Isiac* table, called by *Pignorius* and *Kircher*, the *persea*, *acacia*, *melilot*, *wormwood*, *purslain*, &c. appear to be much liker other kinds, such probably as were no way concerned in the *Egyptian* physics or theology, than those to which they are ascribed. The *purslain* particularly, or *motmoutin* [6], seems, by the figure, to be the *sugar cane*, which this country might anciently, as it does at this time, produce. But, among those that may be better distinguished; such as the head of the *poppy* [7], or of the *pomegranate*, which are divided into a number of apartments, full of seed, by these they denoted a city well inhabited. By the *reed*, (the only instrument they anciently wrote with, as they continue to do to this day,) they signified the invention of arts and sciences [8], together with the culture of the vine, according to *Kircher* [9]. The reed is still used for the support of the vine. This plant is frequently seen, with the top of it bending down [1], in the hands of their deities, and was the same symbol, according to *Kircher* [2], with the *bullrush* and *papyrus*; expressive likewise, of the various necessaries of life. The *palm-tree* [3], from shooting forth one branch every month, *i. e.* twelve in a year, signified that same period of time. The boughs of it, that were equally emblematical with those of other kinds, of the first productions of nature [4], or of the primitive food of mankind, were probably the θαλλοὶ or *branches* [5], which the votaries carried in their hands, when they offered up their devotions. It is certain, that other nations made use of these boughs upon a civil [6], as well as religious [7] account. The *persea* [8], mistaken for the *beach tree*, was sacred to *Isis*, as the *ivy* was to *Osiris* [9]. Now the leaves of the *persea* typifying the tongue, as the fruit itself did the heart, they intimated thereby the agreement there should be betwixt our sentiments and expressions; and, that the deity is to be honoured with both. The figure [1], which we often see, like a *trident*, is supposed by *Kircher*, to be a triple branch of this tree, typical of the three seasons; the spring, the summer, and winter; into which the *Egyptians* divided their year. But the *lotus* [2] is the most common and significative among the vegetable symbols, being observed to attend the motion of the *sun*, to lye

The purslain.

The poppy.

The reed.

The bullrush *and* papyrus.

The palm tree.

The persea.

The lotus.

[6] ⲙⲟⲧⲙⲟⲩⲧⲓⲛ idem significat, quod *liberans a morte*, ita *Ægyptii* portulacam vocabant. *Hierophantes* vero αἷμα Αρεος, &c. Vid. *Kirch. Oedip.* p. 78.

[7] *Euseb. Præp. Evang.* p. 68. [8] *Horap. Hierogl.* l. i. cap. 38. [9] *Kirch. Oed. Ægypt.* Synt. iii. p. 232. [1] Id. ibid. p. 234. [2] Id. ibid. p. 234.

[3] *Horap. Hierogl.* l. i. cap. 3. [4] *Porphyr. de abstinentia.* [5] *Clem.* l. v. p. 672-3. [6] *Heliod. Æthiop. Hist.* l. x. [7] *Jos. Antiq. Jud.* l. iii. cap. 10.

[8] *Plut. de Isid.* p. 378. *Diod.* l. i. p. 21. [9] *Diod.* l. i. p. 10. [1] *Kirch. Oed. Ægypt.* Synt. iii. p. 228. [2] *Herod. Eut.* § 92. *Jambl. de Myst.* § vii. cap. 2.

under

under water in its abſence, and to have the flowers, leaves, fruit, and root of the ſame round figure with that luminary. *Oſiris* therefore was not only ſuppoſed to be repreſented, in an extraordinary manner, by the *lotus*, but to have his throne [3] likewiſe placed upon it.

Flowers. By a *flower* [4] (it is not material perhaps of which *ſpecies*) the power of the deity was typified, as having thereby conducted a plant (and therein emblematically any animal or vegetable production) from a ſeed (or ſmall beginning) to a perfect *flower* (or ſtate of maturity.)

The anemone. However we read, that the *anemone* [5], in particular, was an emblem

The onion. of ſickneſs. The *onion* [6] too, upon account of the root of it, (which conſiſts of many coats, enveloping each other, like the orbs in the planetary ſyſtem) was another of their ſacred vegetables. The prieſts [7] would not eat it, becauſe, among other reaſons, it created thirſt; and, contrary to the nature of other vegetables, grew and increaſed when the *moon* was in the *wain*.

Utenſils, &c. Among the great variety of *utenſils*, *inſtruments*, *mathematical figures*, &c. that we meet with upon their *obeliſks*, and in other pieces of ſacred

The calathus. writing, we may give the firſt place to the *calathus*, or *baſket*. This is uſually placed upon the head of *Serapis*, who was the ſame [8] with *Oſiris*, and denoted [9] the various gifts that were received from, and con-

The ſitula. veyed back to, the deity. The *ſitula* or *bucket*, which *Iſis* carries ſometimes in her hand, denoted the fecundity of the *Nile*; and differed very little, in ſhape, from the σπονδεῖον, or *cup* of libation [1], that

The crater. was one of the attributes of the κολίστης, or *ornator*. The *crater*, or *bowl* [2], was another emblem of the ſame kind, being alſo placed upon the heads of their deities, typifying thereby the great plenty and be-

The canopus. neficence, that flowed from them. The *canopus* [3] was of the ſame claſs, repreſenting the element, of divinity or water [4]. Under a *ſphingopedes* [5], upon the *Iſiac table*, we ſee three of them together, denoting the three cauſes [6], that were then aſſigned, for the inundation of the *Nile*.

Inſtruments, &c. Artificial *inſtruments*, and things relating to that claſs, are in great

The ſiſtrum. numbers. Among the muſical inſtruments, we ſee the *ſiſtrum* [7], and the *plectrum* [8]; the former whereof was uſed, in their religious ceremonies, to fright away the evil *dæmons*; being at the ſame time expreſſive of the periods of the *Nile's* inundation, and that all things in

[3] Id. ibid. [4] *Macrob. Sat.* 1. l. xvii. [5] *Horap.* l. ii. cap. 8. [6] *Juven. Sat.* xv. ver. 9. [7] *Plut. de Iſid.* p. 353. [8] Id. ibid. p. 376. [9] *Macrob. Sat.* l. i. cap. 20. *Euſeb. Præp. Evang.* p. 68. *Pignor. Tab. If.* p. 49. [1] *Clem. Alex.* l. vi. p. 456. [2] *Hermes in Pirmandro.* [3] *Euſeb. Eccl. Hiſt.* l. ii. apud *Rufinum.* [4] *Porphyr. apud Euſeb. Præp. Evang.* p. 57. [5] *Athenæi Deipnoſ.* l. v. [6] *Horap.* l. i. cap. 21. [7] *Plut. de Iſid.* p. 376. *Serv. in Virg. Æn.* viii. De ſiſtro. [8] *Clem.* l. v. cap. 23.

the

the univerſe are kept up by *motion*. The *plectrum* was either emble- *The* plectrum.
matical of the poles, upon which the globe of the earth is turned; or elſe of the air, which communicated life and motion to the univerſe. Inſtruments of puniſhment, ſuch as the *hook* and the *flagellum*, are *The* flagellum.
ſometimes ſeen in the hands of their *Genii averrunci*; expreſſive, no doubt, of the power they are ſuppoſed to make uſe of, in driving away the evil *dæmons*. But the *flagellum*, in the hands of *Oſiris* [9], denotes his character, as guiding the chariot of the *ſun*. The Σχοῖνος, *The* Σχοῖνος *and* ſacred cubit.
and *ſacred cubit*, (the latter [1] whereof was the badge of the Στολιστὴς, bit.
the former [2], of the Ἱερογραμματεὺς, or ſacred ſcribe) may be likewiſe placed among the inſtruments of juſtice; to which we may add the *ſceptre*, that has before been taken notice of, as the ſymbol of govern- *The* ſceptre.
ment, ſteadineſs and conduct. But the *wheel* [3], which was the re- *A* wheel.
verſe of the *ſceptre*, ſignified the inſtability of human affairs. A long *rod*, like the *haſta pura* of the *Romans*, was probably a ſymbol of the *The* haſta pura.
ſame importance with the *ſceptre:* being generally aſcribed to the *ſun* [4]; though ſometimes we ſee it held in the hands of their other deities. The top of it alſo is frequently adorned with the head of the *upupa*, *The top of it*
goat, *Orus*, *Iſis*, or the *lotus*, whereby ſome new character may be *with the head*
preſumed to be ſuperadded to it. Thus, among other inſtances, a *of* Iſis, *&c.*
rod with the head of *Iſis* or *Orus* upon it, might expreſs ſome branch of power and authority, which the perſon who holds it had received from one or other of thoſe deities.

Among the *mathematical figures*, we meet with the *circle* and *creſ-* Mathematical
cent, which repreſent the ſun and the moon, κυριολογικῶς, i. e. *pro-* figures; *as the*
perly ſpeaking, or without any *ænigmatical* meaning, as *Clemens Alex-* circle, creſcent,
andrinus [5] expreſſes it. The *circle* likewiſe is equally ſymbolical of the year with the *ſerpent* biting its tail. A *globe*, or *diſk*, is often placed globe.
upon the heads of their deities, as all of them bear ſome relation to the *ſun*. It is fixed alſo, upon the head [6], and between the very horns of *Iſis*, whoſe attributes and ceremonies were frequently the ſame [7] with thoſe of *Oſiris*. *Wings* are often added to the *globe*, with *Wings given*
a *ſerpent* hanging from it, being all of them together, ſymbolical of *to the* globe.
what is preſumed to be the *anima mundi* [8]; i. e. a power, ſpirit, or faculty, that diffuſes life, vigour, and perfection throughout the uni- *The* ſerpent
verſe. A *ſerpent*, ſurrounding a *globe*, carried along with it the ſame *ſurrounding the*
meaning [9]. When the *circle* has within it a *ſerpent*, either lying in a globe, *or lying within it.*

[9] *Macrob. Sat.* l. i. cap. 23. [1] Vid. not. 1. p. 358. [2] *Clem.* l. vi. p. 757.
[3] *Plut. in Numa.* [4] *Pign. in* Μυθολ. *e Coris* p. 170. *Macrob. Sat.* l. i. cap. 17.
[5] *Clem.* l. v. p. 657. [6] *Apul. Met.* l. xi. p. 258. [7] Id. ibid. p. 27.
[8] *Abeneph. de Relig. Ægypt. apud Kirch. Oed. Paman.* p. 403. & *Oed. Ægypt. Claſſ.* vii. cap. i. p. 96. et cap. iv. p. 117. [9] *Abeneph.* apud *Kirch. Ob. Pam.* p. 420.

ſtraight

ſtraight line, or forming the figure of a croſs, by the expanſion of it's wings; then it is ſuppoſed to be the ſymbol of an *agathodæmon* [1], otherwiſe expreſſed by the *greek* [Θ] *theta*. The *hieralpha* [2] likewiſe, which is frequently held in the hands of their deities and *genii*, might carry along with it the like ſignification. Of the ſame kind alſo was the ♀ *crux anſata* [3], which conſiſted of a croſs, or ſometimes of the letter T only, fixed in this manner [☥] to a *circle*. Now as the *croſs* [4] denoted the four elements of the world, the *circle* will be ſymbolical of the influence, which the *ſun* may be ſuppoſed to have over them: or, as *Kircher* [5] explains it, by the *circle* is to be underſtood the creator and preſerver of the world; as the wiſdom derived from him, which directs and governs it, is ſignified by the ☥, T, (or †, as he writes it,) the *monogram*, as he further conjectures, of *Mercury*, *Thoth*, *Taaut*, or [ΦΘ] *Phtha*. It is certainly very extraordinary, and worthy of our notice, that this *crux anſata* ſhould be ſo often found in their ſymbolical writings; either alone, or held in the hands, or ſuſpended over the necks of their deities. *Beetles* and ſuch other ſacred animals and ſymbols, as were bored through, and intended for, amulets, had this figure frequently impreſſed upon them. The *crux anſata* therefore, was, in all probability, *the name of the Divine Being*, as *Jamblichus* records it [6], *that traveled through the world*. We may further ſuppoſe it to be *the venerable* effigies *of the ſupreme deity, which, Apuleius* [7] informs us, *was not made in the likeneſs of any creature*; or to be the *phylactery* of *Iſis*, which, not unlike the *thummim* in the

The ſacred alpha.

The crux anſata.

The meaning of the ♀ crux anſata.

[1] *Philo Bib.* apud *Euſeb.* de *Præp. Evang.*

[2] Hoc μονόγραμμον [illegible], ex Δ & A compoſitum, in nullo non obeliſco frequentiſſimum, *Ægyptiacarum* vocum ΔΑΓΑΘΟC ΔΕΜΟΝ quibus bonum genium *Deltæ* Nili ſeu *Ægypti* ſignant, index; cum præter dictarum vocum capitales literas, ejus quoque *Ægypti* portionis figuram quam Δ paſſim vocant, clare dictum μονόγραμμον exprimat. *Kirch. Prodr. Copt.* p. 231.

[3] *Kirch. Obel. Pamph.* p. 440. [4] *Cabala Saracenica*, ibid. p. 372. *Juſtin. Martyr. Apolog.* p. 370.

[5] Sicut nomen Dei יהוה juxta *Rab. Hakadoſch*, Deum generantem ſignificat, ſic & hoc (ΦΘ) non apud *Coptitas* tantum; ſed apud *Ægyptios* antiquos quoque *Emepht*, ſeu cum aſpiratione *Hemepht*, ſeu ΗΕΜΦΘ, quod nos ex *Copto* interpretamur (in *Phtha*), quaſi diceres, Deum omnia peragentem in *Phtha* filio, quem produxit; vel, ut cum *Jamblicho* loquar, *Emepht* nimirum producentem ex ovo *Phtha*, hoc eſt, intelligentiam ad exemplar ſuum ΙΧΘΟΝ generantem ſapientiam, omnia cum veritate artificioſe diſponentem, nempe *Taautum*; quem proinde appoſite per hos characteres ſeu μονογράμματα [illegible], ♀ repræſentabant: per circulum primum mundi genitorem, æternumque conſervatorem, divinitatemque ejus ubique diffuſam, per ☥ vero ſapientiam mundum gubernantem intelligentes. *Kirch. Prod. Copt.* p. 169.

[6] *Jambl. de Myſt.* ſect. 8. cap. 5. [7] *Apul. met.* l. xi. p. 262.

breaſt-

breaſt-plate of the high prieſt, ſignified, according to *Plutarch* [8], *The voice of truth.* But the interpretation of this figure (the croſs-part of it at leaſt) is recorded, in *Sozomen* and other *Chriſtian* authors, as expreſſive of *the life to come* [9]: being the ſame, with *the ineffable image of eternity* [1], that is taken notice of by *Suidas*. The learned *Herwart* alſo, in a very elaborate diſſertation, has endeavoured to prove it to be the *acus nautica*, or the *mariner's compaſs*, which he ſuppoſes was known to the ancients [2].

The hemiſpheres *repreſented by half* diſks.

But to return to the *mathematical figures*. The *hemiſpheres* of the world were repreſented by half diſks; which, according as the circular part was placed upwards or downwards, denoted the upper or the lower *hemiſphere*. A *pyramid*, or *obeliſk*, i. e. an equilateral, or an acute angled triangle, with two equal ſides, denoted the nature and element of fire [3]; but by a right angled triangle [4], was underſtood the nature and conſtitution of the univerſe; whereof the perpendicular expreſſed *Oſiris*, or the *male*; the *baſis* expreſſed *Iſis*, or the *female*; and the *hypotheneuſe* expreſſed *Orus*, i. e, the air or ſenſible world; the offspring of them both. The *Mundus Hylæus*, as *Kircher* recalls the material or elementary world [5], was typified by a *ſquare*; each ſide (as in the table [6] of the *Jewiſh* tabernacle) repreſenting one quarter of it.

Pyramids *and* obeliſks *were ſymbols of fire.*

The world repreſented by a ſquare.

The poſture, dreſs, *&c. of the* Egyptian *deities were ſymbolical,* viz. ſitting.

But there was not only a myſtery couched under theſe and ſuch like images themſelves, but the very poſture, dreſs, and matter of ſome of them, had their meaning. For when *Iſis*, *Oſiris*, &c. are repreſented *ſitting*, this is a type of the deity's *being retired within itſelf* [7]; or, that his power is firm and immoveable: as the throne itſelf, when chequered with black and white, was emblematical of the variety of ſublunary things [8]. When the deities and *genii* ſtand upright, as if ready for action, with their legs placed cloſe together, this [9] is to repreſent them gliding, as it were, through the air, without either let or impediment [1]: but, when the world is typified by a human figure, with its legs in this poſture, this is a token of its ſtability. No leſs ſymbolical was the dreſs of their deities. For the *ſun*, being a body of pure light, his garment, according to *Plutarch* [2], was to be of the

Standing.

The ſun *of a light colour.*

[8] *Plut. de Iſid.* p. 377-8. [9] *Sozomen. Eccleſ. Hiſt.* l. vii. cap. 15. *Ruffin. Eccleſ. Hiſt.* l. ii. cap. 29. *Suid. in Theodoſ. Socrat.* l. ix. *Hiſt. tripart.* [1] *Suid. in vocab.* Ηφαιστος et Διαγνώμων. *Herw. Theolog. Ethnic.* p. 11. [2] Id. ibid. p. 60.
[3] *Porphyr.* apud *Euſeb. Præp. Evang.* p. 60. [4] *Plut. de Iſid.* p. 373--4.
[5] *Plut. in Alcinoo*, cap. 11 & 12. apud *Kirch. Oed. Ægypt.* claſſ. vii. p. 103. *Clem. Alex. Strom.* l. vi. p. 474. [6] *Jamb.* ſect. vii. cap. 2. [7] *Porphyr.* apud *Euſeb. Præp. Evang.* p. 61. [8] *Orph. de Mercurio apud Kirch.* Synt. i. p. 95.
[9] *Heliod. Æthiop.* l. iii. p. 148. [1] *Euſeb. Præp. Evang.* p. 69.
[2] *Plut. de Iſid.* p. 382.

ſame colour, uniformly bright and luminous: though *Macrobius* [3] cloaths the winged ſtatues of the ſun, partly with a light, partly with a blue colour, inaſmuch as the latter was emblematical of that luminary in the lower *hemiſphere*. Whereas *Iſis*, being conſidered as the earth, ſtrewed over with a variety of productions; being alſo light and darkneſs, *&c.* her dreſs, agreeable to theſe qualities, was either to conſiſt of a leopard's ſkin, or elſe to be otherwiſe ſpotted and variegated with divers colours [4]. The *fillets* [5], which make part of her dreſs, or are held in her hands, repreſent the *phaſes* of the *moon*; as the *treſſes* of her hair [6], when they are of a dark blue colour, do the hazineſs of the *atmoſphere*. The *rays*, *flames* [7], *horns*, *veils* [8], *&c.* that are placed immediately upon the heads of theſe figures; the *ſerpents* [9], which ſtand upright upon them, or iſſue out of their hair [1]; together with the *globes*, *mitres* [2], *feathers* [3], *palm leaves* [4], &c. that are ſet above them, have each of them their ſymbolical meaning and deſign; being, in general, ſo many types of the power, nature, and attributes of that deity or *genius*, upon which they are placed [5]. The *beard*, that is ſometimes given to *Oſiris* [6], has likewiſe its myſtery; being ſymbolical of the ſummer ſolſtice; at which time the ſun, having aſcended to its greateſt height, is, as it were, arrived at a ſtate of puberty. But *Silenus's* buſhy beard [7] was the ſame ſymbol with the treſſes of *Iſis's* hair; denoting the hazineſs of the atmoſphere. Nay, the very *black marble*, or *baſaltes*, out of which ſome of theſe figures are made [8], typified, by its colour, the inviſibility of their eſſence; as in others, the head and feet being black, and the body of a lighter colour, might probably be ſymbolical of the deity's lying concealed to us in his deſigns and actions, though he is apparent in his general providence and care of the univerſe.

Iſis's garments variegated.

Iſis's fillets.

The ornaments upon the heads of their deities.

Oſiris's beard.

Statues of black marble.

Thus have I given a ſhort ſketch, and that chiefly upon the authority of the antients, of the ſymbolical and hieroglyphical learning of the *Egyptians*; a ſmall portion, no doubt, of what ſtill remains to be diſcovered. *Kircher* indeed, an author of extraordinary learning, in-

Kircher *hath attempted to interpret theſe characters.*

[3] *Macrob. Sat.* l. i. c. 19. [4] Vid. not. 2. ſupra. [5] *Heliod. in Æthiop. Pigh.* in Μυθολ. De horis, p. 171. *Pier. Hierogl.* l. xxxix. cap. 3. [6] *Euſeb. Præp. Evang.* p. 66. *Philo de vita Moſis*, l. iii. p. 671. *et de tabernaculi aulæis agens, apud Clem. Alex. Strom.* p. 665. [7] *Sidon. Apollin. Bacchi carm. apud Diod.* l. i. *Vetus poetæ apud Aleandr. Exp. Tab. Heliacæ*, p. 22. [8] *Kirch.* Synt. xvii. p. 490. [9] *Horap.* l. i. cap. 1. [1] *Val. Flac. Argonaut.* l. iv. [2] *Kirch.* Synt. l. i. p. 157. [3] *Euſeb. Præp. Evang.* l. iii. p. 69. *Dionyſ. Areop. Clem. Strom.* l. vi. p. 269. *Euſeb. Præp. Evang.* l. i. cap. 7. [4] *Apul. Met.* l. xi. p. 269. [5] *Kirch.* ubi ſupra, n. 2. [6] *Macrob. Sat.* l. i. cap. 18. [7] *Euſeb. Præp. Evang.* p. 67. [8] Id. ibid. p. 60.

defatigable-diligence, and ſurpriſing invention, has attempted to interpret [8] all the ſacred characters and figures that came to his hands. But as it cannot be known certainly (the *Egyptians* being rude ſculptors as well as painters) whether he might not take the figures themſelves for ſuch objects as the ſacred ſcribes did not intend them, miſtaking, for inſtance, one animal, plant, inſtrument, utenſil, &c. for another; all reaſonings and inferences, drawn from theſe figures, can be little more than mere conjecture; and therefore, the remarkable boaſt of *Iſis* [9] will hold true, that *no mortal has* hitherto *taken off her veil.*

SECT. II.

Of the antiquities of Egypt, *viz. of the* OBELISKS, PYRAMIDS, SPHINX, CATACOMBS, *and* MUMMIES.

Of the OBELISKS.

EXCEPTING the *Iſiac table* [1], and a few other *Egyptian* antiquities, the *obeliſks*, that are ſtill preſerved in *Egypt*, or which have been removed from thence to *Rome* and other places, are the principal ſurviving archives and repoſitories [2], to which the ſacred writing, treated of in the foregoing chapter, has been committed. The obeliſks, notwithſtanding the extraordinary length of ſeveral of them, have been hewn out of the quarry, not only without the leaſt interruption, either from the perpendicular or horizontal ſutures, ſo common elſewhere in other much leſſer maſſes of marble; but even without the leaſt flaw or imperfection. All of them likewiſe, that I have ſeen, were of a *reddiſh granite* (πυρροποίκιλον) marble, finely poliſhed: though the *hieroglyphical* characters, engraved ſometimes to the depth of two inches upon them, are all of them rough and uneven: no attempt, at leaſt, ſeems to have been ever made to poliſh them. Now as we ſee no traces of the chiſſel, either upon the *obeliſks* themſelves, or in

This ſacred writing conveyed chiefly upon obeliſks.

[8] See his *Oedipus*, *Obeliſcus*, *Pamphylius*, &c.

[9] ΕΓΩ ΕΙΜΙ ΠΑΝ ΤΟ ΓΕΓΟΝΟΣ, ΚΑΙ ΟΝ, ΚΑΙ ΕΣΟΜΕΝΟΝ· ΚΑΙ ΤΟΝ ΕΜΟΝ ΠΕΠΛΟΝ ΟΥΔΕΙΣ ΠΩ ΘΝΗΤΟΣ ΑΠΕΚΑΛΥΨΕΝ. *Plut. de Iſid. & Oſiride*, p. 354. *Ed. Par.*

[1] This is likewiſe called the *Tabula Bembina*, from being once in the poſſeſſion of Cardinal *Bembo*. It has been publiſhed by *Pignorius*, *Herwart*, and others, and is now in the poſſeſſion of the Dukes of *Savoy*. Vid. *Kirch. Oed. Ægypt. in menſa Iſiaca.*

[2] *Jamblichus* inſtructs us [ſect. 1. cap. ii. *De myſteriis Aegypt.*] that *Plato* and *Pythagoras* learned their philoſophy from thence. This philoſophy is alſo taken notice of by *Pliny*, l. xxxvi. cap. 9. Inſcripti (*Obeliſci*) rerum naturæ interpretationem *Ægyptiorum* opera philoſophiæ continent.

the *hieroglyphical* ſculpture; it is probable, that the latter was performed by a drill [3]; whilſt the *obeliſks* themſelves might receive both their figure and poliſh from friction. They were all of them cut quarries of the upper *Thebais*, to which a branch of the *Nile* was conducted; and being laid upon floats (σχέδια) were brought at the time of the inundation, and left upon the very ſpot where they were afterwards to be erected. Leſſer ſtones, we are told, were drawn upon *chamulci* or ſledges.

The ſhape and faſhion of theſe obeliſks.

Theſe *obeliſks* conſiſt of two parts, *viz.* the *ſhaft* and the *pyramidion* [4]: as for their pedeſtals (I mean of thoſe two that continue ſtanding, the one at *Alexandria*, the other at *Matta-reah*,) they lie ſo concealed, under ſoil and rubbiſh, that I had not an opportunity to ſee them. However, when the bottom of the former was laid open, ſome years ago, by Mr. *Conſul Le Maire*, they found the pedeſtal of it to be eight *French* feet in height, and in the like faſhion with thoſe of the *Græcian* and *Roman* architecture. The *ſhaft* is in a decuple proportion of its greateſt breadth; as the whole figure is nothing more than the *fruſtum* of a *pyramid*, whoſe ſides incline towards each other in an angle of about one degree. This *fruſtum* terminates in a point, that is uſually made up (by the inclination) of equilateral planes, as in the common *pyramids*, from whence it has received the name of the *pyramidion*, or little *pyramid*. It has likewiſe been obſerved [5], that the height of this part is equal to the greateſt breadth of the *obeliſk*; but this, I preſume, will not always hold true; otherwiſe it would be of great importance, as will be ſhewn hereafter, in eſtimating the particular quantity or portion of theſe pillars that lie buried under ground. But the *baſis*, or foot, may perhaps be the moſt remarkable part of theſe *obeliſks*; eſpecially if that at *Alexandria* is to inſtruct us. For this, as the late worthy perſon above mentioned informed me, was not ſquare, but *hemiſpherical*; and received (in this manner ⊔) into a correſpondent cavity in the pedeſtal; upon which likewiſe were

The pedeſtal.

The ſhaft.

The pyramidion.

The foot of the obeliſk *round.*

[3] This is called by *Pauſanias* [in *Attic*] τέρετρον or τρύπανον, and was the invention of *Callimachus*. Steel brought from *India*, σίδηρον Ἰνδικὸν, [*Arrian. Perip. Mar. Eryth.*] being the hardeſt, was what they made uſe of for their inſtruments, (σιδήρια λιθεργά) other ſteel not being of a ſufficient temper to cut theſe *Egyptian* marbles.

[4] *Obeliſci* altitudinem in decupla proportione conſtituerunt ad latus quadratæ baſis inferioris. Sic ſi *obeliſci* cujuſquam latus ſit decem palmarum, altitudo erit centum. *Pyramidion* vero, terminans *obeliſcum*, altitudine ſua æquabat latitudinem inferiorem, ſive latus baſis infimæ *obeliſci*. *Kirch. Ob. Pamph.* p. 52.

[5] Vid. preceding Note.

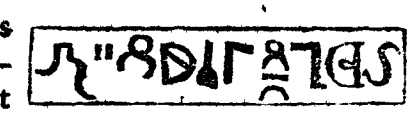
inſcribed

To face p. 365.

The Obelisk at Mattareah.

To Sr ROBERT BURDETT of Formarch in y^e County of Derby, Baronet.

inſcribed theſe odd characters, ſuch as the *wheel-like, capreolated* ones of *Apuleius*[6] may be ſuppoſed to have beeen. It



is certain, that theſe *obeliſks*, by being thus rounded at the bottom, would bear a nearer reſemblance to darts and miſſive weapons, than if they were ſquare; and conſequently would be more expreſſive of the rays of the ſun, which they were ſuppoſed to repreſent; as it was the ſun itſelf to which they were dedicated[7]. It may likewiſe be preſumed, as the *pyramids*[8], which are *obeliſks* only in obtuſer angles, were equally emblematical of fire, or the ſun, ſo they may be conſidered under the ſame religious view, to have been no leſs conſecrated to the ſame deity.

Obeliſks *and* pyramids *dedicated to the ſun.*

The *obeliſks* which I have mentioned at *Alexandria* and *Heliopolis*, have been deſcribed by various authors. The *hieroglyphics* upon the latter (which I copied and found to be the ſame on all ſides) are exceedingly fair and legible; and indeed the whole pillar is as intire and beautiful as if it were newly finiſhed. But the *Alexandrian obeliſk*, lying nearer the ſea, and in a moiſter ſituation, has ſuffered very much; eſpecially upon that ſide, which faces the northward; for the planes of theſe *obeliſks* no leſs than of the *pyramids*, ſeem to have been deſigned to regard the four quarters of the world. It may likewiſe be further obſerved with regard to the *obeliſk* of *Alexandria*, that the height of it, which is fifty *French* feet, (three whereof are buried under ground) agrees, almoſt to a nicety, with the length of one or other of the *Meſphrean obeliſks*[9], that were erected at that place. Seve-

The obeliſks *of* Alexandria, *and* Mattareah *or* Heliopolis.

[6] De opertis adyti profert quoſdam libros, literis ignorabilibus prænotatos; partim figuris cujuſmodi animalium, concepti ſermonis compendioſa verba ſuggerentes; partim nodoſis & *in modum rotæ tortuoſis, capreolatimque* condenſis apicibus, a curioſa profanorum lectione munita. *Apul. Met.* l. xi. p. 268.

[7] *Obeliſci* enormitas Soli proſtituta. *Hermut. apud Tertull. de ſpect.* cap. 3. Trabes ex eo fecere reges quodam certamine, *Obeliſcos* vocantes, Solis numini ſacratos. Radiorum ejus argumentum in effigie eſt; & ita ſignificatur nomine *Ægyptio. Plin.* l. xxxvi. cap. 8. (ΠΤΕΒΠΗΡΚ forſan i. e. digitus Solis. *Kirch. Obel. Pamph.* p. 44.) *Meſphres* — duos *Obeliſcos* Soli conſecravit. *Iſid.* l. xviii. cap. 31. Finis denique principalis, quem *Ægyptii* in *Obeliſcorum* erectione habebant, erat, ut *Oſiridem* & *Iſidem*, hoc eſt, Solem & Lunam in his figuris, veluti myſtica quadam radiorum repræſentatione colerent, quaſi hoc honore tacite beneficiorum, per hujuſmodi ſecundorum Deorum radios acceptorum, magnitudinem inſinuantes. *Kirch.* p. 161. ut ſupra. Other deities likewiſe, viz. *Jupiter, Venus, Apollo, &c.* were worſhiped under the forms of *Obeliſks* and *Pyramids*. Vid. *Pauſan. in Corinth.* p. 102. *Max. Tyr.* Διαλεξ. λή. We learn from *Clemens Alex.* (*Strom.* l. i. p. 418.) that this method of worſhiping pillars was of great antiquity. Vid. *Suid.* in voce.

[8] Vid. *Porphyr. apud Euſeb. Præp. Evang.* p. 60.

[9] Et alii duo ſunt *Obeliſci* Alexandriæ, in portum ad Cæſaris templum, quos excidit Meſphres rex quadragenûm binûm cubitorum. *Plin.* l. xxxvi. cap. 9.

ral

ral of the hollow hieroglyphical characters upon the *Heliopolitan obeliſk*, are filled up with a white compoſition, as if they were enamelled; and, at firſt ſight, engaged us to imagine, that all of them, were originally intended to be ſo. But, upon a ſtricter view, this appeared to have been done by the hornets, which, in the ſummer ſeaſon, are apt to fix their neſts in theſe cavities.

This obeliſk was probably erected by Sochis.

Diodorus [1] inſtructs us, that *Seſoſtris* erected two *obeliſks* at *Heliopolis*, each of them a hundred and twenty cubits high, and eight broad: and we learn from *Pliny* [2], that *Sochis* and *Ramiſes* erected each of them four, whereof thoſe of *Sochis* were forty eight, and thoſe of *Ramiſes* forty cubits only in height. The breadth of the lower part of this, which I am ſpeaking of, is only ſix feet; and the whole height, according as I meaſured it by the proportion of ſhadows, was no more than ſixty four; though other travellers have deſcribed it to be upwards of ſeventy. Provided then we could determine which of the above mentioned pillars this remaining one ſhould be, and know at the ſame time the exact height of it, we might thereby compute the quantity of mud, that has been accumulated upon the adjacent ſoil, ſince the time that it was erected. Now thoſe that were raiſed by *Seſoſtris* are vaſtly too high, as thoſe of *Ramiſes* are as much too low, to lay the leaſt pretenſions to it. In all probability therefore, this, which I am deſcribing, muſt be the ſurviving *obeliſk* of thoſe that were erected by *Sochis*: further notice whereof will be taken in another place.

Of the PYRAMIDS.

The pyramids variouſly deſcribed.

THERE is no point in hiſtory that has been ſo often, and at the ſame time ſo variouſly treated of, as the *pyramids* of *Memphis*. The ancients abound with a diverſity of accounts and deſcriptions concerning them; whilſt the moderns, after a much longer courſe of obſervations, have rather multiplied the difficulties, than cleared them.

Neither the antients nor moderns agree about the dimenſions of the great pyramid.

The dimenſions of the great *pyramid* have given occaſion to one diſpute. *Herodotus* [3] makes the *baſe* of it to be eight hundred foot long; *Diodorus* [4] ſeven hundred; and *Strabo* [5] only ſix hundred. Among the moderns, *Sandys* [6] found it to be three hundred paces; *Bellonius* [7] three hundred and twenty four; *Greaves* [8], ſix hundred and ninety three *Engliſh* feet; and *Le Brun* [9] ſeven hundred and

[1] *Diod.* l. i. p. 38. [2] *Plin.* l. xxxvi. cap. 8. [3] *Herod. Eut.* § 124. [4] *Diod. Sic. Bibl.* l. i. p. 40. [5] *Strab. Geogr.* l. xviii. p. 555. [6] *Sandys's Trav.* p. 99. ed. 6. [7] *Bellon. Obſer.* l. ii. p. 269. [8] Vid. *Greavii Pyramidographia.* [9] *Le Brun's voyage*, cap. 36.

four

four (as we may ſuppoſe them to be) of *France*; which make about ſeven hundred and fifty of our meaſure. There is no way to reconcile theſe differences; and it would be unjuſt to charge theſe authors with deſigned miſtakes. Thus much then, in general, may be ſaid, in defence and vindication of errors and diſagreements of this kind, that, at preſent, none of the ſides of this *pyramid* are exactly upon a level. For there is a deſcent in paſſing, from the entrance into it, all along by the eaſtern corner, to the ſouthern; there is again an aſcent from this to the weſtern point; whilſt the ſides, which regard the W. and the N. have been greatly encroached upon, by thoſe large drifts of ſand, which the *Eteſian* winds, during a long courſe of years, have brought along with them. As therefore it will be difficult to find its true *horizontal baſe*, or foundation; it being likewiſe uncertain (which is the chief thing to be conſidered) how far theſe drifts of ſand may have been accumulated above it; all calculations of this kind muſt be very different and exceedingly precarious, according to the poſition of the adjacent ſands, and to other circumſtances at the time particularly, when theſe obſervations were made.

None of the ſides of it are upon an exact level.

Neither does it appear that either this, or any other of the three greater *pyramids* was ever finiſhed. For the ſtones, in the entrance into the greateſt, being placed archwiſe, and to a greater height than ſeems neceſſary for ſo ſmall an entrance, there being alſo a large ſpace left on each ſide of it, by diſcontinuing ſeveral of the parallel rows of ſteps, which, in other places, intirely ſurround the *pyramid*; theſe circumſtances, I ſay, in the architecture of this building, ſeem to point out to us ſome further deſign; and that, at this entrance, there might have been originally intended a large and magnificent *portico*. Neither were theſe ſteps (or *little altars*, βωμοὶ, as *Herodotus* [1] calls them) to remain in the ſame condition: inaſmuch as they were all of them to be ſo filled with *priſmatical* ſtones, that each ſide of the *pyramid*, as in *Cæſtius's* at *Rome*, was to lye ſmooth and upon a plane. Yet nothing of this kind appears to have been ever attempted, in the leſſer or in the greater of theſe *pyramids*, the latter of which wants likewiſe a great part of the point, where this filling up was to commence; but in the ſecond, commonly called *Chephrenes's pyramid*, which may hint to us what was intended in them all, we ſee near a quarter of the whole pile very beautifully filled up, and ending, at the top, in a point. The ſtones, wherewith the *pyramids* are built, are, from five, to thirty feet [2] long; and from three to four feet high, agreea-

None of the pyramids were ever finiſhed.

The ſteps to be filled up with priſmatical ſtones.

[1] *Herod. Eut.* § 125.

[2] *Herodotus* makes none of theſe ſtones leſs than thirty foot, *ibid.* § 124.

ble

ble perhaps to the depth of the *ſtrata* from whence they were hewn. Yet, notwithſtanding the weight and maſſineſs of the greateſt part of them, they have all been laid in mortar, which, at preſent, eaſily crumbles to powder, though originally, no doubt, it was of greater tenacity, as the compoſition of it ſeems to be the ſame with what is ſtill made uſe of in theſe countries [3].

The pyramidal ſtones not brought from the Arabian *or* Trojan *mountains.*

The ancients [4] inform us, that the ſtones were brought from the mountains of *Arabia*, or from the *Trojan mountains* [5]. Yet, notwithſtanding the great extravagance and ſurpriſing undertakings of the *Egyptian* kings, it does not ſeem probable, that they would have been at the vaſt labour and expence of bringing materials at ſo great a diſtance, when they might have been ſupplied from thoſe very places, where they were to be employed. For what makes the bulk and outſide, at leaſt, of all theſe *pyramids*, is not of marble, but of free-ſtone, which is of the ſame nature and contexture, has the like accidents and appearances of *ſpars*, *foſſil ſhells*, *coralline* ſubſtances [6], &c. as are common to the mountains of *Libya*. In like manner, *Joſeph's well*, (as it is called at *Kairo*;) the quarries of *Moccatte* near the ſame place; the *catacombs* of *Sakara*, the *Sphinx*, and the chambers, that are cut out of the natural rock, on the eaſt and weſt ſide of theſe *pyramids*, do all of them diſcover the ſpecific marks and characteriſtics of the *pyramidal* ſtones, and, as far as I could perceive, were not at all to be diſtinguiſhed from them. The *pyramidal* ſtones, therefore, were, in all probability, taken from this neighbourhood; nay

They were taken from the mountains upon which they are employed.

[3] Vid. not. p. 206. [4] *Herod. Eut.* § 124. *Diod. Sic.* l. i. p. 40. *Plin.* l. xxxvi. cap. 12.

[5] So called, from being in the neighbourhood of *Troy*, which was built by the followers or ſlaves of *Menelaus*, in the *upper Egypt*. *Strab.* l. xvii. p. 809. Univerſum autem littorale latus juxta *Arabicum* ſinum tenent Arabes Ægyptii ichthyophages, in quibus dorſa montium ſunt, *Troici* lapidis montis, et Alabaſtrini montis, et Porphyritici montis, et Nigri lapidis montis, et Balanitis lapidis montis. *Ptol. Geogr.* l. iv. c. 5. ☞ Λίθος, or *lapis*, was indifferently uſed by the ancients for *free-ſtone*, or *marble*. The λιθολομίαι alſo, or *lapicidinæ*, equally regarded them both. *Marble* was ſo called (ὅτι τῷ μαρμαίρειν) from *ſhining* upon being poliſhed: the ſame with λίθος ξεστὸς and λαμπρὸς and πολυτελής. It does not appear that marble was uſed by the *Grecian* artiſts, either in ſculpture or building, before the fifteenth *Olympiad*, bef. Chr. 720. *Dædalus's* ſtatues of *Hercules* and *Venus* were of wood, of which, or of rough ſtone, were likewiſe their idols and temples, till that time. The ancient temple of *Delphi* was built about *Olymp.* LXV. bef. Chr. 520, or 513 years after the temple of *Solomon*.

[6] Eſpecially of ſuch as *Strabo* calls, and believed to be, petrified *lentils*, telling us, that they were originally the food of the workmen. *Strab. Geogr.* l. xvii. p. 556. See the catalogue in the COLLECTANEA.

perhaps

perhaps they were thoſe very ſtones, that had been dug away, to give the *Sphinx*, and the chambers I have mentioned, their proper views and elevations.

It may be further obſerved, that the *pyramids*, eſpecially the greateſt, is not an intire heap of hewn ſtones; inaſmuch as that portion of it, which lies below the *horizontal* ſection of the entrance, appears to be nothing more than an incruſtation of the natural rock, upon which it is founded. For, in advancing through the narrow paſſage, this rock is twice diſcovered: the lower chamber alſo, together with the well, (whoſe mouth lies upon a level with it) have the like appearance; whereby a conſiderable abatement would be made, in ſuch foreign materials, as might otherwiſe have been required.

The great pyramid is not all of it a heap of hewn ſtones.

It is very ſurpriſing, that the *pyramids*, which, from their firſt foundation, muſt have been looked upon with wonder and attention, ſhould not have preſerved a more certain tradition of the time when they were founded, or of the names of their founders. *Pliny* [7] reckons up a number of authors, who have written of the *pyramids*; and all of them, he tells us, diſagree concerning the perſons who built them. Now as *Egypt* had been, from time immemorial, the ſeat of learning; where it was likewiſe pretended, that a regular and chronological [8] account had been kept of all the remarkable tranſactions of their kings; it is much, that the authors of ſuch great undertakings ſhould be ſo much as even diſputed. Yet we find, there were various accounts and traditions concerning them. For it is ſaid [9], that *Suphis* built the firſt, and *Nitocris* the third; that the ſecond was raiſed, as *Herodotus* [1] acquaints us, from the money which the daughter of *Cheops* procured at the expence of her chaſtity; and again, that the two greater were the work of the ſhepherd *Philition*; and the leaſt had the harlot *Rhodope* for its foundreſs. Others again, which is the moſt general opinion, make *Cheops* (or *Chemmis*,) *Chephrenes*, and *Nycerinus* to be the founders of them. *Herodotus* indeed, who has preſerved theſe reports, does not give much credit to them; however, it may be juſtly enough inferred from thence, that, as the chronology of the *pyramids*, thoſe wonders of the world, was thus dubious and obſcure, there is ſuffici-

No certain account when or by whom theſe pyramids were founded.

[7] Qui de iis [*pyramidibus*] ſcripſerunt, ſunt *Herodotus*, *Euhemerus*, *Duris Samius*, *Ariſtagoras*, *Dionyſius*, *Artemidorus*, *Alexander Polyhiſtor*, *Butorides*, *Antiſthenes*, *Demetrius*, *Demotiles*, *Apion*. Inter omnes eos non conſtat a quibus factæ ſunt, juſtiſſimo caſu obliteratis tantæ vanitatis autoribus. *Nat. hiſt.* l. xxxvi. c. 12. The like account we have in *Diodorus*, l. i. p. 41.

[8] *Herod. Eut.* § 124, 127, 134 & 125. *Diod.* l. i. p. 29. [9] *Maneth. apud Syncell. Chronol.* p. 56 & 58. [1] *Herod.* ut ſupra.

ent ground to ſuſpect the correctneſs and accuracy of the *Egyptian* hiſtory in other matters.

It is not agreed for what uſe the pyramids *were intended.*

Neither is there an univerſal conſent, among theſe authors, for what uſe or intent they were deſigned. For *Pliny* [2] aſſerts, that they were built for oſtentation, and to keep an idle people in employment; others, which is the moſt received opinion, that they were to be the ſepulchres of the *Egyptian* kings [3]. But if *Cheops*, *Suphis*, or whoever elſe was the founder of the great *pyramid*, intended it only for his ſepulchre; what occaſion was there for ſuch a narrow, ſloping entrance into it; or for the well [4], as it is called, at the bottom of the gallery; or for the lower chamber, with a large nich or hole in the eaſtern wall of it; or for the long narrow cavities in the walls or ſides of the large upper room, which likewiſe is incruſtated all over with the fineſt *granite* marble [5]? or for the two ante-chambers, and the lofty gallery [6], with benches on each ſide, that introduce us into it? As the whole of the *Egyptian* theology was cloathed in myſterious emblems and figures, it ſeems reaſonable to ſuppoſe, that all theſe turnings, apartments, and ſecrets in architecture, were intended for ſome nobler purpoſe (for the *catacombs*, or burying places, are plain, vaulted chambers, hewn out of the natural rock;) and that the deity rather, which was typified in the outward form of this pile [7], was to be worſhiped within. The great reverence and regard, which *Suphis* [8], in particular, one of the ſuppoſed founders, is ſaid to have paid to the gods, will not a little favour ſuch a ſuppoſition: and even provided this ſhould be diſputed, no places certainly could have been more ingeniouſly contrived for thoſe ſecret chambers, or *adyta*, which had ſo great a ſhare in the *Egyptian* myſteries and initiations.

The great pyramid *was probably intended for a temple.*

The ſecond and third pyramids *were not intended for ſepulchres.*

It has been already obſerved, that *Chephrenes* was ſuppoſed to have built the ſecond *pyramid*, and *Mycerinus* the third: but for what intent? not to be their ſepulchres; inaſmuch as there being no paſſage left open into them, as into the *great pyramid*, they muſt have been pulled down, and built again after their deceaſe, before their bodies

[2] *Plin.* l. xxxvi. cap. 12. [3] *Lucan.* l. ix. ver. 155. & l. viii. ver. 698. *Strab. Geogr.* l. xvii. p. 461. *Diod. Sic. Bibl.* l. i. p. 40. [4] *Plin.* l. xxxvi. cap. 12.

[5] *Vitruvius*, l. vii. c. 5. mentions *cruſtarum marmorearum varietates, in quo*, ſays he, *Romani Ægyptios* imitabantur. In contradiſtinction to this method of incruſtating, we have *columnæ ſolidæ* ſometimes mentioned. *Plin.* l. xxxvi. c. 6.

[6] See the deſcription of theſe ſeveral places in *Greaves's Pyramidographia.*

[7] Vid. p. 361, 365.

[8] Οὗτος ὃ καὶ ὁ περόπλης [περιόπλης, Contemplator, *Marſh. Chron. Canon.* p. 51.] εἰς θεὸς ἐγκύκλιος, καὶ τλὼ ἱερὰν συνέγραψε βίβλον, ἣν ὡς μέγα χρῆμα ἐν Αἰγύπτῳ γνώμῃ [Manetho] ἐπησάμενο. *Syncell.* p. 56.

could have been introduced and depoſited within them. If indeed we had any tradition, that theſe *pyramids* had been built by ſome pious ſucceſſors, over the tombs of their anceſtors, there would then be leſs occaſion to call in queſtion an opinion, that has been ſo generally received. But if no report of this kind occurs in hiſtory; if the founders made no proviſion in them for their interment; but contrived them, as far as we know or are informed, to be cloſe compact buildings, it may be ſo far preſumed, that the two leſſer *pyramids* at leaſt could never have been intended merely for ſepulchres.

But it may be urged, that the *ſquare cheſt* of *granite* marble, in the upper chamber of the great *pyramid*, has always been taken for the coffin of *Cheops*; and conſequently that the *pyramid* itſelf might have been intended for the place of his ſepulture. Might not this cheſt have been rather deſigned for ſome religious uſe; and to have been concerned either in the myſtical worſhip of *Oſiris* [9]; or to have ſerved for one of their κίσται ἱεραὶ [1], or ſacred cheſts, wherein either the images of their deities, or their ſacred veſtments [2] or utenſils were kept; or elſe that it was a *faviſſa*, or ciſtern [3] for the *holy water*, uſed in their ceremonies and purgations. The length [4] of it, which is above ſix feet, does indeed favour the received opinion; but the height and the breadth, which are each about three feet, very far exceed the uſual dimenſions of the *Egyptian* coffins. Thoſe which I have ſeen, and by them we may judge of others, were of a different form, being inſcribed with *hieroglyphics*, and made exactly in the faſhion of the *mummy* cheſts; juſt capacious enough to receive one body. Whereas this pretended one of *Cheops* is in form of an oblong ſquare; neither does it end, as the *mummy* cheſts do, in a pedeſtal, whereupon (as the faſhion itſelf demonſtrates) they were to be erected and ſet upright. Neither is it adorned with any ſacred characters, which, from the great number of coffins, that are never known to want them, ſeem to have been a general as well as a neceſſary act of regard and piety to the deceaſed. The manner likewiſe, in which it is placed, is quite different, as I have juſt now hinted, from what was, perhaps always, obſerved by the *Egyptians*,

The cheſt in the great pyramid *was intended for ſome religious uſe.*

The ſtone coffins of Egypt *not made in the ſame form.*

The mummies *were not placed* horizontally, *but upright.*

[9] *Plut. de Iſide*, p. 365, 6. [1] *Apul. Met.* l. xi. p. 262.

Pars obſcura cavis celebrabant orgia ciſtis. *Cat.*

—— tacita plenas formidine ciſtas. *Val. Flacc.*

[2] Particularly of ſuch as were carried about in their *comaſiæ* (ΚΩΜΑΣΙΑΙ.) *Clem. Strom.* l. v. p. 413.

[3] Vid. *Feſt.* in voce *Faviſſa*. *Abeneph. de relig. Ægypt.* ap. *Kirch. Obel. Pamph.* p. 473. [4] Vid. p. 374. not. 2.

in depoſiting their dead bodies: inaſmuch as the *mummies* always ſtand upright [5], where time or accident have not diſturbed them. Whereas this cheſt lies flat and level with the floor; and thereby has not that dignity of poſture, which, we may ſuppoſe, this wiſe nation knew to be peculiar, and therefore would be very ſcrupulous to deny to the human body. If this cheſt then was not intended for a coffin (and indeed *Herodotus* [6] tells us that *Cheops* was buried upon an iſland, in the vaults below; where the *Nile* was admitted; the ſame probably with the bottom or end of the paſſage, where *Strabo* places the θήκη) we have ſo far a preſumptive argument, that the *pyramid* itſelf could not, from this very circumſtance, have been intended only for a ſepulchre. Nay, upon the very ſuppoſition that *Cheops* and others had been buried within the precincts of this or any other of the *pyramids*; yet ſtill this was no more than what was practiſed in other temples [7]; and would not therefore deſtroy the principal uſe and deſign for which they might have been erected. And indeed, I am perſuaded that few perſons, who will attentively conſider the outward figure of theſe piles; the ſtructure and contrivance of the ſeveral apartments in the inſide of the greateſt; together with the ample proviſion that was made near this and the ſecond *pyramid*, for the reception, as it may well be ſuppoſed, of the prieſts, who were there to officiate; but will conclude, that the *Egyptians* intended the *larger* of them for one of the places, as all of them were to be the objects at leaſt, of their worſhip and devotion.

The cheſt not intended for the coffin of Cheops.

Strabo [8], as far as I know, is the only perſon among the ancients, who ſeems to have been acquainted with the narrow entrance into the great *pyramid*; which, he tells us, had a ſtone placed in the mouth of it, to be removed at pleaſure. We have only a ſmall aſcent up to this entrance at preſent; which, in his time, was ſituated much higher, or nearly in the middle of the *pyramid*; whereby we are ſufficiently appriſed of the extraordinary encroachments, which the annual drifts of ſand have, ſince that time, made upon the original foundation. However, if this paſſage had been thus early left open,

The ancients not acquainted with the inſide of the great pyramid.

[5] *Herod. Eut.* § 86. *Diod. Sic.* l. i. p. 58.

Ægyptia tellus
Claudit odorato poſt funus ſtantia buſto
Corpora. *Sil. Ital.* l. xiii. ver. 475.

[6] *Herod. Eut.* § 127. [7] Id. ibid. § 169. *Thal.* § 10. *Clem Alex. Cohort. ad gentes*, p. 39.

[8] Ἔχει δ' ἐν ὕψει μέσως πῶς τῶν πλευρῶν λίθον ἐξαιρέσιμον. ἀρθέντος δὲ σύριγξ ἐστὶ σκολιὰ μέχρι τῆς θήκης. l. xvii. p. 1161.

(whether

(whether it continued directly forward, in the same angle of descent, viz. 26°, quite down to the subterraneous chambers; or whether from these subterraneous chambers the ascent was to be by the well into the upper ones; or whether we were to stop short, as at present, about the middle of this passage, and turn on our right hand, through a narrow irregular breach, which, according as it is previously cleared from sand and rubbage, is with more or less difficulty to be passed through; and may be therefore suspected to claim no great antiquity) it is very extraordinary, I say, that this passage, with the θήκη, or coffin, at the bottom of it, should have been known to *Strabo*; that the vaults and subterraneous chambers should have been known to *Strabo* and *Herodotus*; that the well should have been known to *Pliny*; and yet, that no particular account or description should have been left us, either of the square vaulted chamber, that lies upon the same floor with the well; or of the long and lofty gallery that arises from thence; or of the two closets, or anti-chambers, with their niches and other devices, which we enter, upon our arrival at the top of this gallery; or of the most sumptuous and spacious chamber, incrustated all over with granite marble, that we are conducted into afterwards; or of the square chest, commonly called the tomb of *Cheops*, which is placed upon the floor, on the right hand, in entring this chamber. And as all these places were very curious and remarkable, it is the more unaccountable, why they should have been neglected or overlooked, or the descriptions of them have been omitted by those authors; especially as the *wall*, which would have easily introduced them into this large scene of antiquity, was well known to one of them.

The Arabian *account of this* pyramid.

An *Arabian* historian [9] acquaints us, that this *pyramid* was opened, perhaps through the breach I have mentioned, about nine hundred years ago, by *Almamon*, the renowned *Calif* of *Babylon*; and that "they found in it, towards the top, a chamber, with a hollow stone, "in which there was a statue like a man, and within it a man, upon "whom was a breast-plate of gold, set with jewels; upon this "breast-plate there was a sword of inestimable price, and at his head "a carbuncle of the bigness of an egg, shining like the light of the "day, and upon him were characters writ with a pen, which no "man understood." But this, it may be presumed, is of the same authority, with what the same author observes in another place, "That he who built the *pyramids*, was *Saurid ibn Salhouk*, the king

[9] *Ibn Abd Alhokm*, as he is recorded by Mr. *Greaves* in the *Pyramidographia*.

"of

" of *Egypt*, who was before the flood 300 years." But paſſing over theſe idle traditions and accounts, it is remarkable and particular enough, that this cheſt, in ſtriking it with a piece of iron, ſhould give the ſame muſical note *(E-la-mi*, if I miſtake not) with the chamber; whereby we may ſuppoſe it to have proportionable and ſimilar dimenſions; as indeed they are given by *Pere Sicard* [1], though different from what they are in Mr. *Greaves's Pyramidographia* [2]. We are to obſerve further, that this cheſt is fixed ſo ſtrongly in the floor, that a number of perſons, who were with me, were not able to move it. It is ſituated (perhaps not without a myſtery) in the ſame direction, with the mouth of the *pyramid*, directly to the northward; a poſition, that was likewiſe given to the doors of other *Egyptian* edifices [3].

Of the SPHINX.

There are holes upon the head and rump of the ſphinx.

BESIDES what has been already ſaid of the *Sphinx*, we are to obſerve, that in *July* 1721, the ſands were ſo far raiſed and accumulated about it, that we could only diſcover the back of it; upon which, over the rump, there was a ſquare hole, about four feet long, and two broad, ſo cloſely filled with ſand, that we could not lay it open enough to obſerve, whether it had been originally contrived for the admiſſion of freſh air; or, like the well in the *great pyramid*, was intended for a ſtair-caſe. Upon the head of it there is another hole, of a round figure; which, I was told, for we could not get up to it, is five or ſix feet deep, and wide enough to receive a well-grown perſon. The ſtone, which this part of the head conſiſts of, ſeems, from the colour, to be adventitious, and different from the reſt of the figure, which is all of the ſame ſtone, and hewn out of the natural rock. It muſt be left to future travellers to find out, whether theſe holes ſerved only to tranſmit a ſucceſſion of freſh

[1] See the particulars of this menſuration in the COLLECTANEA.

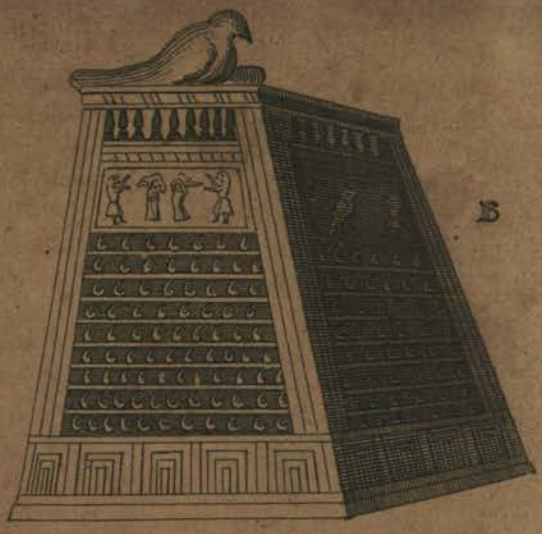
[2] The exteriour ſuperficies of this tomb contains in length, ſeven feet three inches, and an half. In depth it is three feet, three inches, and three quarters; and is the ſame in breadth. The hollow part within is in length on the W. ſide, ſix feet and $\frac{488}{1000}$. In breadth, at the N. end, two feet and $\frac{218}{1000}$. The depth is two feet, and $\frac{860}{1000}$ parts of the *Engliſh* foot. The length of the chamber on the ſouth ſide is thirty four feet and $\frac{380}{1000}$. The breadth is ſeventeen feet and $\frac{190}{1000}$. The height is nineteen feet and $\frac{1}{2}$. Vid. *Pyramid.* ut ſupra. *N. B. Belloñius*, to ſhew how ſubject the moſt curious obſervers are to miſtakes, makes the length of this tomb to be twelve feet. *Obſ.* l. ii. c. 42.

[3] *Herod. Eut.* § 101. 148. In this ſituation likewiſe the *table (of ſhew bread)* was placed in the *tabernacle*. Exod. xl. 22.

air

To face p. 373.

The embalmed Bird taken out of the Urn.



air into the body of the *ſphinx*, or whether they might not have had likewiſe a communication with the *great pyramid*, either by the well, or by the cavity or nich in the wall of the lower chamber, that lies upon a level with it. Nay, it may ſome time appear, that there are chambers alſo in the two other *pyramids*; and not only ſo, but that the eminence likewiſe, upon which they are both erected, is cut out into *cryptæ*, narrow paſſages and *labyrinths*, which may, all of them, communicate with the chambers of the prieſts, the artful contrivers of theſe *adyta*; where their initiatory, as well as other myſterious rites and ceremonies, were to be carried on with the greater awe and ſolemnity.

These holes had probably a communication with the pyramids.

Of the MUMMIES.

THE accounts that have been hitherto given us of the *mummies*, ſeem to be very imperfect; and indeed the *catacombs* at *Sakara*, which are commonly viſited, have been ſo frequently rifled and diſturbed, that nothing has preſerved its primitive ſituation. There are ſtill remaining, in ſome of theſe vaults, a great number of urns, of baked earth, in a *conical* ſhape, in each of which is contained an *ibis*; with the bill, the bones, nay the very feathers of it, well preſerved. For (if we except the *hieroglyphical* writing) the ſame bandage and mixture of ſpices, that was applied to the human body, were beſtowed upon this. But the ſkull, and ſome other bones of an ox, the *apis*, as it may be preſumed to have been, which I ſaw, looked white, and as it were bleached, neither did they diſcover the leaſt token of having been ever embalmed. There were ſeveral little wooden figures alſo, of the ſame quadruped, that were painted white, with their legs tied together, as if ready to be ſacrificed. I ſaw, at the ſame time, a ſmall veſſel like a ſloop, with the maſts and ſails intire, and the men handling their oars.

The catacombs *at* Sakara.

The urns in which the ibis *is preſerved.*

Little ſquare boxes, uſually painted either with ſymbolical figures or *hieroglyphics*, are found in theſe *catacombs*. The figure of a *hawk* is commonly fixed upon each of the lids; though I have one that is ſurmounted with a *dog*[4], and another with an *owl*; each of them of ſolid wood, and painted in their proper colours. I was at a loſs to know, for what other uſes theſe boxes could have been deſigned, than to be the coffins of their ſacred animals; when Mr. *Le Maire*, who had been at the opening of a new vault, informed me, that

Boxes placed before the feet of the mummies.

4 This is expreſſed in plate xxiv. fig. 4. of Mr. *Alex. Gorden's* collection of *Egyptian* antiquities.

one

one of them was placed at the feet of each *mummy*; and therein were inclosed the instruments and utensils, in *miniature*, which belonged to the trade and occupation of the embalmed person, when he was alive. He shewed me one of them, which contained a variety of figures in lascivious postures; and had therefore appertained, as he conjectured, to some lady of pleasure or *curtizan*. Among other figures, there was a *Bacchus* in copper; a hollow *phallus*, in alabaster; several small earthen vessels, for paint; and the joint of a reed, which had within it a pencil, and some powder of *lead ore*; the same that is still used by the women of these count ies [5]. These boxes, the *mummy* chests, and whatever figures and instruments of wood are found in the *catacombs*, are all of them of *sycamore*, which, though spongy and porous to appearance, has notwithstanding continued intire and uncorrupted for at least three thousand years. A little behind the boxes, a number of small images, of baked earth, in the form of the *mummy* chests; some blue, others white, others pied or in the habit of a *nun*, are ranged around the pedestal of the *mummy* chests, as if they were intended to be so many guardian *genii* and attendants. I have already observed, that these bodies were originally placed upright: and where we find one or other of them lying on the ground, there we may suppose them to have been lately removed from their places; or that the *Egyptians* had been, some way or other, prevented from duly performing their last offices to the dead.

Various instruments found in them.

The boxes, mummy chests, &c. made of the sycamore wood.

Little images placed round about the mummy chests.

The composition, that is found in the heads of the *mummies*, looks exactly like pitch, but is somewhat softer: the smell of it also is the same, though something more fragrant. It is probably the tar extracted from the *cedar* [6]. In examining two of these *mummies*, after taking off the bandage, I found the *septum medium* [7] of the nose to

The composition of the mummies; their bandages, &c.

5 Vid. p. 229. 6 Apud *Ægyptios* cadaver fit τάριχος, i. e. salsura, sive *mummia* (مومي) uti appellant recentiores medicorum filii, ab *Arabico* (*Persic.* potius) مومم i. e. cerâ; quia ceromate etiam in eo negotio utebantur. *Gatak. Annot. in M. Anton.* p. 275. مومبا *mummia* vulgo; Pissasphalton (ἢ ὄζουσα πίσσης μεμιγμένης ἀσφάλτῳ.) *Dioscorides* l. i. cap. 101. *Gol. Dict. Pliny* (l. xvi. cap. 11.) makes this composition to be the tar of the *torch pine*, which he calls *cedria*; from whence we may rather take it to be the tar of the *cedar* tree, according to *Dioscorides*, l. i. cap. 106. Κέδρος δένδρον ἐστὶ μέγα, ἐξ οὗ ἡ λεγομένη ΚΕΔΡΙΑ συνάγεται. — Δύναμιν δὲ ἔχει σηπτικὴν μὲν τῶν ἐμψύχων, φυλακτικὴν δὲ τῶν νεκρῶν σωμάτων· ὅθεν καὶ νεκροῦ ζωήν τινες αὐτὴν ἐκάλεσαν. Liquor picis, quæ aquæ modo fluit ex tæda dum coquitur, *cedrinus* vocatur; cui tanta vis est, ut in Ægypto corpora hominum defunctorum eo perfusa servantur. *Colum. De re rustica*, l. vi. c. 32.

7 The *septum medium* of the nose is taken away, as well for the easier extraction

have

have been taken away in them both; and that the ſkulls were ſomewhat thicker than ordinary [8]. One of theſe ſkulls is preſerved among my other curioſities. There were few or none of the muſcular parts preſerved, except upon the thighs; which notwithſtanding crumbled to powder upon touching them. The like happened to that part of the bandage, which more immediately enveloped the body; though fifty yards and upwards of the exterior part of it was, upon unfolding it, as ſtrong, in appearance, as if it had been juſt taken from the loom. Yet even this, by being expoſed to the air, was, in a few days, eaſily rent to pieces. I found neither money in the mouths, nor idols in the breaſts, of theſe *mummies*, as I might have expected from the common reports, that have been related of them.

Idols ſaid to be found in their breaſts.

SECT. III.

Of the Nile, *and the ſoil of* Egypt.

OF ſuch things as relate to the *natural hiſtory* of *Egypt*, the *Nile*, without doubt, is the moſt worthy of our notice, and to which we ſhall therefore give the firſt place. Now it has been already obſerved, that it ſeldom rains in the inland parts of *Egypt*; but that upon the coaſt, from *Alexandria*, all along to *Dami-ata* and *Tineh*, they have their former and latter rains [9], as in *Barbary* and the *Holy land*. The periodical augmentation therefore of the *Nile* muſt be owing to ſuch rivers and torrents, as diſcharge themſelves into it, in the regions to the ſouthward, particularly in *Æthiopia*; inaſmuch as the *Nile* has there its ſources; where the ſun alſo, when it draws near the northern *tropic*, brings on their winter, and with it the rainy ſeaſon. The *Portugueſe miſſionaries* [1] claim the honour of this

The Nile's *inundation occaſioned by the rains in Æthiopia.*

of the brain, as for the injection of the pitch-like ſubſtance into it. Πρῶτα μὲν σκολιῷ σιδήρῳ ἀφ' τῶν μυξωλέρων ἐξάγυσι τὸν ἐγκέφαλον, τὰ μὲν αὐτὸ ἔτω ἐξάγοντες, τὰ δ' φάρμακα ἐγχέοντες. *Herod. Eut.* § 86.

[8] *Herodotus* makes the *Egyptians* to be remarkable for the thickneſs of their ſkulls. Αἱ δ' τῶν Αἰγυπτίων (κεφαλαὶ) ἔτω δή τι ἰσχυραί, μόγις ἂν λίθῳ παίσας ἀποῤῥήξεις. *Herod. Thal.* § 12.

[9] See p. 136, 7. 335. and the journal of the weather amongſt the COLLECTANEA, Num. xi.

[1] To the immenſe labours of the *Portugueſe*, mankind is indebted for the knowledge of the real cauſe of the inundations of the *Nile*, ſo great and regular. Their obſervations inform us, that *Abyſſinia*, where the *Nile* riſes, and waters vaſt tracts of land, is full of mountains, and in its natural ſituation much higher than *Egypt*; that all the winter, from *June* to *September*, no day is without rain; that the *Nile* receives in its courſe all the rivers, brooks, and torrents which fall from thoſe mountains;

discovery; though, among others, we find some of the *Grecian* as well as *Arabian* philosophers [2], who have embraced the same opinion. Among the latter *Abdollaliph*, in his history of *Egypt*, acquaints us, that *an. Hej.* 596, when the *Nile* rose no higher than twelve cubits and eleven digits (which occasioned a great famine in *Egypt*) there came an ambassador from *Æthiopia*, who brought letters signifying the death of their *metropolitan*, and requesting a successor: wherein it was mentioned, that they had had but little rain in *Æthiopia*, and therefore the *Egyptians* were to expect a low *Nile*.

The Etesian *winds not the cause of the overflow.*

It has been commonly imagined, that the *Etesian* or northern winds, which blow over the *Mediterranean* sea, by carrying along with them great quantities of vapour, as far as these sources of the *Nile*, were the cause of its inundation. But these winds are not found, by experience, to blow constantly from the beginning to the end of the inundation, as *Herodotus* (*Eut.* p. 109.) has well observed; but are frequently interrupted with winds from other quarters. And moreover, if these winds blow not directly from the north, but incline, as they generally do, more or less to the E. or W. they will diverge from the mountains of *Æthiopia*, where their influence is required, and direct their courses, together with the clouds and vapours that accompany them, towards the regions of *Libya* or *Arabia*.

The Etesian *winds not always attended with clouds.*

Neither do these *Etesian* winds always bring along with them such successions of clouds and vapours, as have been related by some authors. For, in the year 1721, during the whole course of the inundation (which was as high and copious as usual) I observed very little or nothing at all of this cloudy disposition of the atmosphere; the air being, for the most part, as clear and serene as at other times. And besides, if these *Etesian* winds were the cause of the overflow; then, as often as they continued for any considerable time, they would be succeeded by inundations. Great floods would consequently happen, both in the spring and in the winter seasons, when the winds

these necessarily swell it above the banks, and fill the plains of *Egypt* with the inundations. This comes regularly about the month of *July*, or three weeks after the beginning of the rainy season in *Æthiopia*. Vid. *Monthly Library for March*, 1735. *P. Lobo's Hist. of Abyssinia.*

[2] *Diod. Sic.* l. i. p. 26, 27. Vid. *Plut. de placit. philos.* l. iv. c. 1. Incrementum *Nili* fit e pluviis, qui in illa regione (sc. *Abyssinia*) decidunt. *Ebn Sina* apud *Abulf. Geogr.* ex traduct. v. cl. *J. Gagnier.* Incrementum *Nili* oritur ex imbribus copiosis; quod quidem dignoscitur ex accessu & recessu, seu ortu & occasu siderum, & pluviarum abundantia, nubiumque consistentia. *Al Khodai* apud *Kalkasend. de incremento Nili*, ex traduct. ut supra.

blow, for a month together, in various directions, from the N. E. to the N. W. But, as theſe winds are not attended with any extraordinary ſwellings of the river, at theſe ſeaſons; ſo they may well be ſuſpected, not to contribute at all, to the periodical riſing in the ſummer. It is more probable, that, ſuch clouds and vapours as are brought along with them, at theſe no leſs than at other times, from the *Mediterranean*, may be diſſipated, dried up, or converted into rain, a long time before they arrive at the fountains of the *Nile*.

The quantity of mud brought down by the river.

Yet how wonderful ſoever this large conflux of water may have been accounted, in all ages, the great quantity of mud, that, from time to time, has been brought down along with it, will appear to be no leſs ſtrange and ſurpriſing. Surely the ſoil of *Æthiopia* (provided the *Nile* reaches no further) muſt be of an extraordinary depth, in having not only beſtowed upon *Egypt* ſo many thouſand annual *ſtrata*, but in having laid the foundation likewiſe of future additions to it in the ſea, to the diſtance of twenty leagues: ſo far at leaſt, by ſounding and examining the bottom of it with a plummet, the mud is found to extend.

The quality of the mud.

The ſoil, or mud, that is thus conveyed, buoyed up with the ſtream, is of an exceedingly light nature, and feels to the touch like what we commonly call an impalpable powder. *Plutarch*[3] tells us, that the colour of it is black; ſuch a black, ſays he, as is that of the eye; though, in another place[4], he makes every thing black, where water is concerned. The appellations alſo of ΜΕΛΑΣ and שחור[5] are ſuppoſed to have been given to it, either upon the ſame account[6]; or from the muddineſs only of the water. The *ſpecimens* of it, which I have often examined, were of a much lighter colour than our common garden mould; neither does the ſtream itſelf, when

[3] *Plut. de Iſide*, p. 364. [4] *Plut.* ut ſupra.

[5] שיחר a שחר ſc. *niger fuit.* So *Jer.* ii. 18. *What haſt thou to do in the way of Egypt, to drink* מי שחור *the waters of Sihor*; or *the black* or *muddy waters?* שיחור *Sichor*, fluvius Ægypti *Nilus*, Græcis μέλας, *niger*, ob turbidas limo aquas: Latinis *Melo*, & literis M & N permutatis, *Nilus*. *Schind. Lex.*

[6] Advenit *Ægypto* lutum nigrum viſcoſum, cui ineſt multum pinguedinis, dictum *Al-Abliz*. Advenit hoc e regionibus Nigritarum aquis Nili in incremento ſuo admixtum, & decidente aqua ſubſidet lutum, tumque aratur & ſeritur. Et quotannis advenit ipſi recens lutum. — Ob hanc cauſam terra Said vegeta eſt, multi proventus pabulique, quia initio propior eſt, ideoque ad eam pertingit magna hujus luti copia, contra ac inferior terræ pars *(prope Damiatam ſc. & Roſettam:)* ea ſiquidem ſterilis eſt & macilenta, quia lutum ejus tenue eſt & debile; ſiquidem aqua, quæ ad eam provenit, tenuis eſt & limpida. — Incrementum Nili ad finem provenit ſub æquinoxio autumnali; tum autem recluduntur aggeres, qui omnes terræ partes inundant. *Abdollaliphi Hiſt. Ægypt.* p. 5.

ſaturated with it, appear blacker than other rivers under the ſame circumſtances. As for the *Nile* (or *Nil*, as it is pronounced by the inhabitants) it is, in all probability, as I have before obſerved, a contraction of *Nahhal*, [נחל] i. e. *the river*, by way of eminence. *Abdollaliph* (Tract. xi. cap. 1.) derives it from قال *Nâl*, which ſignifies *to give*, *to beſtow*, or *to be liberal*; according to which etymology, he makes the *Nile* to ſignify *the munificent giver of good things*. But this ſeems rather to be a fine thought, than a juſt account of the origin of the name.

The Mikeas, Nileſcope, *or meaſuring pillar.*

In order to meaſure the increaſe of the *Nile*, there is built upon the point of the iſland *Rhoda*, betwixt *Kairo* and *Geeza*, a large room, ſupported by arches, into which the ſtream has free admittance. In the middle of it is placed the *Mikeas*, or *meaſuring pillar*, which is divided into cubits, as the ancient *Nileſcopes*[7] appear to have been.

The cubits, into which it is divided, have not continued the ſame.

But the cubit itſelf, or *peek*, πῆχυς, as it is ſtill called, has not continued the ſame. For *Herodotus* acquaints us, that, in his time, the *Egyptian peek*, or cubit, was the ſame with the *Samian*[8]; which, being no other than the common *Grecian* or *Attic* cubit[9], contained very little more[1] than a foot and half of *Engliſh* meaſure. Three or four centuries afterwards, when the famous ſtatue of the *Nile*, that is ſtill preſerved at *Rome*, was made, the cubit ſeems to have been, a little more or leſs, twenty inches: for of that height, according to the exacteſt meaſure that could be taken, are the ſixteen little children that are placed upon it, which, according to *Philoſtratus*[2] and *Pliny*, repreſented ſo many cubits. The preſent cubit is ſtill greater; though it will be difficult to determine the preciſe length of it. And indeed, with regard to the meaſures of the *Arabians* (as well as of ſome other nations) we have very few accounts or ſtandards that we can truſt to.

Great diverſity of opinions concerning the length of this cubit.

For *Kalkaſendas*[3] makes the *Haſemæan* or *great peek* to be only twenty four digits, or eighteen inches; whereas the *Arabian* author,

7 *Diod. Sic.* l. i. p. 23. *Strab.* l. xvii. p. 562.

8 *Herod. Eut.* § 168. 9 Id. ibid. § 149.

1 Our Profeſſor *Greaves* makes the difference betwixt the *Engliſh* and *Greek* foot (and ſo in proportion of the cubit) to be as 1000 is to $1007\frac{20}{100}$.

2 *Philoſt. Icon. de Nilo. Plin.* l. xxxvi. c. 7.

3 Septem autem genera cubitorum *Arabicorum* recenſet *Calcoſendius Philologus:* 1. Cubitus *Homaræus*, $1\frac{2}{3}$ cubiti communis & μετρίου, ذراع البي Hoc menſus eſt olim *Homarus Ebn Cottabi* ſpatium inter *Baſram* & *Cufam*. 2. *Haſemæus*, qui & *cubitus major* nuncupatur, digitorum 24. Digitus vero occupat 7 hordea lata, aut $7 \times 7 = 49$ pilos burdonis. Illo vero cubito æſtimatio verſat in jure *Mohammedico*. Idem teſtatur *Maruphidas*. 3. *Belalæus*, *Haſemæo* minor. 4. *Cubitus niger*, *Belalæo* cedet digitis

quoted

quoted by *Golius*[4], will have it to be thirty two, *i. e.* twenty four inches. The *Drah el Soudah*, or *black peek* likewiſe, which the former obſerves to be no more than twenty one digits in length, is made by the latter to be twenty ſeven. And moreover, the digit of *Kalkaſendas* is equal to a ſpace taken up by ſeven barley corns, placed ſide-ways; whereas ſix[5] is the meaſure according to *Golius's* author. Now agreeable to *Kalkaſendas*, as he is quoted by Dr. *Bernard*, the *Drah el Soudah* (*i. e.* the cubit of twenty one digits) is that, by which the *Nile* was meaſured: whereas in the ſame author's diſſertation upon the *Nileſcope*[6], the meaſuring cubit is there defined to be expreſly of twenty eight digits. *Thevenot*[7], in giving us an account of the daily increaſe, reckons by a *peek* of twenty four digits; tho', according to a like account of the daily increaſe, which I had from *Signore Gabrieli*, a *Venetian* apothecary who has reſided many years at *Kairo*, the *peek* is there expreſsly of twenty eight inches[8]; or, nearly an inch leſs than that which, Dr. *Bernard*[9] tells us, he ſaw the model of in *Maruſidas*. By the length and diviſion of the *Mikeas*,

2 ⅔, ab *Æthiope* quodam *Raſidi* principis a latere nomen & modum ſuum habet. Menſura ædificiorum NILOMETRI, merciumque pretioſarum. 5. *Joſippæus*, ⅔ digiti minor *cubito nigro*. 6. Chorda ſive *Aſaba*, brevior *cubito nigro* 1 ⅔ digiti. 7. *Mabaranius* cubitus 2 ⅔ *cubiti nigri*, foſſis menſurandis *Mamone* principe imperatus. Vid. *Edw. Bernard. de menſuris*, p. 217.

[4] Vid. *Edw. Bernard.* ut ſupra, p. 218. [5] Vid. ut ſupra, p. 220.

[6] Quilibet cubitus continet viginti octo digitos, donec compleatur elevatio aquæ ad duodecim cubitos. Deinde cubitus fit viginti quatuor digitorum. Quando igitur volunt ſupponere hanc elevationem pertigiſſe ad ſexdecim cubitos, diſtribuunt duos cubitos redundantes, qui continent viginti octo digitos, inter duodecim cubitos, quorum unuſquiſque continet viginti quatuor digitos, ſicque fit quilibet cubitus viginti octo cubitorum. *Kalk.* ex traduct. v. cl. *J. Gagnier.*

[7] See his *Travels* in *Engliſh*, p. 232.

[8] *June* 29, N. S. 1714, the *Nile* was 5 cubits high. *June* 30th it increaſed 3 inches.

July 1,		2. Inches.	*July* 12,		5. Inches.	*July* 23,		7. Inches.
2,		3.	13,		4.	24,		8.
3,		2.	14,		6.	25,		7.
4,		4.	15,		8.	26,		8.
5,	it increaſed	3.	16,	it increaſed	8.	27,	it increaſed	10.
6,		4.	17,		15.	28,		15.
7,		6.	18,		25.	29,		20.
8,		4.	19,		15.	30,		30.
9,		5.	20,		10.	31,		48.
10,		4.	21,		8.	increaſed, in all (*July* 31) 15 $\frac{26}{24}$ cub.		
11,		3.	22,		6.	*Aug.* 1. *Wafaa Allah.*		

[9] Poteſt ex modulo *Maruſidæ* in MS. Arabico Bibliothecæ noſtræ cubitus *Haſemæus* uncias *Anglicanas* 28, 9. *De menſ.* p. 219.

according

according to the account I had of it from a curious [1] gentleman at *Kairo*, the *peek* appears to be ſtill different from any of thoſe already deſcribed. "The *Mikeas* (ſays he) is a pillar of fifty eight *Engliſh* "feet high, divided into three geometrical *peeks*, called *Soltani belādi* "*e facēſi*, *i. e. the ſtandard* (as perhaps we may interpret theſe words) "*of the town and merchants*, in all twenty four *Stambole peeks*, i. e. "*the Stambole peek*, according to this account, *is equal to twenty five of* "*our inches*; though, in another letter from the ſame perſon, ſixteen "of theſe *peeks* are made equal to twelve *Engliſh* yards; whereby "one of theſe *peeks* will be equal to twenty ſeven of our inches." My learned friends Dr. *Pococke* [2] and Dr. *Perry*, who have written largely upon this point, have ſtill left it undetermined, or very dubious; the former making the *Mikeas* to be divided into twenty four *peeks* of three different dimenſions, viz. the ſixteen loweſt *peeks* to be each of twenty eight digits, or twenty one inches; the four next of twenty ſix digits; and the uppermoſt of twenty four: whereas the latter [3] fixes it to two feet, or twenty four inches nearly. But as I was informed at *Kairo* (for I could not obtain the like admiſſion with thoſe gentlemen into the *Mikeas*) the *Stamboline* peek is the meaſure whereby they compute at preſent: and as the meaſure, whereby they compute, is, according to Mr. *Mallet's* [4] account, equal to two *French* feet; this ſhould be the leſſer peek of that name, which is to the greater as 31 is to 32; or as 25,6 inches are to 26,4, the length of the great *Stamboline peek* [5]. Let it ſuffice then, in the following calculations, and to avoid fractions, to take this meaſure in round numbers and at a *medium* among thoſe above recited (*viz.* of 26, 27, 25,6, 25, 24, and 21 inches) for one of twenty five inches

[1] This gentleman was the late Mr. *Thomas Humes*, who had been a great many years a factor at *Kairo*, and took the meaſures and deſigns of moſt of the *Egyptian* antiquities. I had the following meaſure of the *peek* from an *Italian* merchant reſiding at *Kairo*, viz.

The *Stambole peek* = 3 *Rom.* palms $\frac{7}{12}$ = 2 $\frac{159}{1000}$ *Engliſh* feet; with this they meaſure the woolen.

The *Miſſer peek* = 2 $\frac{12}{37}$ palms, or 1 $\frac{807}{1000}$ *Engliſh* feet for linen.

[2] *Deſcript. of the Eaſt*, vol. i. p. 256.

[3] *A view of the Levant*, p. 282. 284. 286.

[4] M. *Maillet* makes the *peek*, by which the *Nile* is meaſured, to be equal to two *French* feet, *i. e.* to two feet two inches nearly of our meaſure. — La meſure dont on ſe ſert au *Kaire*, pour connoitre l'elevation de l'eau, contient vingt quatre pouces, ou deux pieds de roy. — Pour être capable de couvrir toutes les terres, il faut que l'accroiſſement du *Nil* monte juſqu'à vingt quatre Draas, c'eſt-à-dire quarante huit pieds. *Deſcript. de l'Egypte*, p. 60.

[5] Vid. *Bernardum de menſuris*, p. 200.

only.

only. This will ſufficiently illuſtrate the various reaſonings and conjectures which we have to offer concerning the following properties and *phænomena* of the *Nile*, and of its effects and influence upon the *land of Egypt*.

The depth of the Nile *in the winter months.*

In the month of *December*, the channel of the *Nile* above the *Mikeas*, where it is broadeſt, was, at a *medium*, about three of theſe cubits in depth; others [6] make it four or five: and, as far as I could judge by the eye, it was little more than half a mile in breadth; though in other places it is much narrower. But in falling down the branch of *Dami-ata*, in the ſame month (and the river might probably be ſhallower in the three following) we frequently ſtruck upon the ground, in the very middle of the channel, though our veſſel drew leſs than three feet of water.

The depth of the Nile *in the middle of* June.

In the middle of *June*, when the *Nile* was conſiderably augmented, (for neither the beginning nor the end of the inundation falls out always at the ſame time [7];) there were few parts of the main channel but we could paſs over, by thruſting our boat forward with a pole of eight cubits in length.

The daily increaſe, till it arrives to ſixteen cubits.

Each day's increaſe afterwards, till the middle of *July*, was two, three, or four digits; afterwards it would be ſometimes ten, ſometimes twenty or thirty, till it roſe (*Aug.* 15, 1721.) to ſixteen cubits; which (with the artful introduction, no doubt, at ſome proper juncture, of a larger meaſure of the ſame denomination [8]) ſeems

[6] Vid. *Pococke* ut ſupra, p. 250. Dr. *Perry* ibid. p. 278.

[7] According to the following account, which was kept by *Signore Gabrieli* for thirty years, the *Nile* arrived at the height of ſixteen cubits, *viz.*

A. D. 1692,	*Aug.* 9.		A. D. 1707,	*Aug.* 10.	
1693,	7.		1708,	4.	
1694,	*Sept.* 1.	P.	1709,	9.	
1695,	*Aug.* 13.		1710,	*July* 28.	
1696,	14.		1711,	*Aug.* 10.	
1697,	11.		1712,	6.	
1698,	7.		1713,	3.	P.
1699,	15.		1714,	1.	
1700,	5.	P.	1715,	*July* 26.	
1701,	17.		1716,	*Aug.* 17.	
1702,	15.		1717,	15.	P.
1703,	18.		1718,	22.	P.
1704,	2.		1719,	5.	
1705,	*Sept.* 19.	P.	1720,	9.	
1706,	*Aug.* 9.		1721,	15.	

☞ The letter P. denotes the plague to have raged that year.

[8] Something of this kind is probably implied in the following remark of *Kalkaſendas*. Obſerva quod noſtro tempore facta eſt corruptio fluviorum & imminutio ſta-

to

to have been received, for many generations, as the ſtandard that portended plenty, and conſequently, as the condition whereupon the *Egyptians* were to pay their annual taxes and tribute.

The cutting of the Nile *at ſixteen cubits.*

For no addition appears to have been made, during the ſpace of five hundred years, to the number of cubits, that are taken notice of by *Herodotus*. This we learn, not only from the ſixteen children that attend the ſtatue of the *Nile* [9] abovementioned; but from *Pliny* [1] alſo, and likewiſe from a medal of *Hadrian*, in the great braſs, where we ſee the figure of the *Nile*, with a boy upon it, pointing to the number 15, or 16. Yet in the fourth century, which it will be difficult to account for, fifteen cubits only are recorded by the emperor *Julian* [2], as the height of the *Nile's* inundation; whereas in the middle of the ſixth century, in the time of *Juſtinian*, *Procopius* (l. iii. *De rebus Gothicis*) informs us, that the riſe of the *Nile* exceeded eighteen cubits. In the ſeventh century, after *Egypt* was ſubdued by the *Saracens*, the amount [3] was ſixteen or ſeventeen cubits: and, at preſent, notwithſtanding the great accumulation of ſoil, that has been unqueſtionably made, ſince thoſe times, yet, when the river riſes to ſixteen cubits (though nineteen or twenty are required to prepare the whole land for cultivation) the *Egyptians* make great rejoicings, and call out *Wafaa Allah*, i. e. *God has given them all they wanted.* And it is at this time, they perform the ceremony of *cutting the Nile*; which is nothing more than the breaking down the bank of earth, that is raiſed againſt the river at the beginning of the increaſe, and thereby admitting a part of the ſtream into a *khalis*, or canal, which runs through the city of *Kairo*.

Lakes dug in ſeveral places to leſſen the depth of the inundation.

This *khalis*, which was the *amnis Trajanus* of the ancients, empties itſelf into *The Berque el Hadge*, or *Lake of the pilgrims*, at twelve miles diſtance to the eaſtward, and was formerly continued to *Heroopolis*, upon the banks of the *Red-ſea*. The lake of *Myris* [4], the *Mareotis*, and others of the ſame kind, ſeem to have been the like contrivances of the ancient *Egyptians*, either to divert, or to carry off the ſuperfluity of water; which, in the earlier ages, when there was a leſs extent and height of ſoil, muſt have frequently broke down their

tus rerum; cujus argumentum eſt, quod Nilometra antiqua regionis Al Said a primo ad ultimum conſtanter habuerunt viginti quatuor digitos pro unoquoque cubito ſine ulla additione ad hunc numerum. The ſame author (*Eutychius* does likewiſe the ſame in his *Annals*) mentions the changing and pulling down ſeveral of theſe *Nilometra*; for the more eaſy introduction perhaps of another meaſure.

[9] Vid. not. 2. p. 380. *Plin.* l. xxxvi. cap. 7.

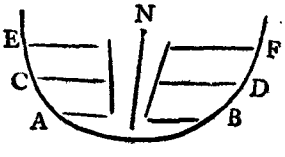
[1] Id l. v. cap. 9. [2] *Julian. Epiſt. Ecdicio, præfecto Ægypti.*

[3] Vide *Kalkaſendas*, ut ſupra. [4] *Diod. Sic.* l. i. p. 32 & 33.

mounds; and would have always been more than ſufficient to prepare the land for cultivation.

Now as the change of ſeaſons and the natural courſe of things has been always the ſame ſince the *Deluge*, the *Nile*, from the ſettled ſtate of things after that period of time to this, muſt have conſtantly diſcharged the ſame quantity of water into the ſea. But the country, which it overflows, being not only nouriſhed and refreſhed by the river, but even, as *Herodotus* ſays [5], its very gift; a great variety of changes and alterations muſt have been all along incident to it. Whilſt therefore the *lower part of Egypt*, where we now find the *Delta* [6], may be ſuppoſed to have been a large gulph of the ſea, the *Upper* is to be conſidered as a valley, bounded on each ſide with mountains.

The Nile has always diſcharged the ſame quantity of water into the ſea.



The method in which the land of Egypt *may be ſuppoſed to have been raiſed.*

Let the annexed figure be a ſection of this valley, with a *Nileſcope* N placed in that part of it, where the *Nile* directed its ſtream. For about the ſpace therefore of one or two centuries after the *Deluge*, or till ſuch time as the mud, brought down by the inundation, was ſufficiently fixed and accumulated to confine the river, we may imagine the bottom of this valley A, B, *(i.e.* the whole land of *Egypt)* to have been entirely overflowed; or elſe, being in the nature of a moraſs, was not fit to be either cultivated, or inhabited. *Egypt* therefore, at this time, was in a proper condition to receive the aſſiſtance of *Oſiris* [7], who, by raiſing mounds, and collecting the water into a proper chanel, kept the river from ſtagnating, and forming itſelf into pools and marſhes, and thereby prepared the land for that culture and tillage, which he is ſuppoſed to have invented. But, in proceſs of time, the annual *ſtrata* would raiſe the country as high as C, D; whereby the *Nile* would not only be ſufficiently confined within its own banks; but the ſuperfluous moiſture alſo, that was left by the inundation, would be eaſily drained off, either into the bed of the river, into the lake of *Myris*, or other lakes of the ſame nature and deſign. Agriculture therefore and huſbandry, would have now their proper encouragements: and in this condition we may conceive the country to have been, at the building of *Thebes* [8]; the parts, where *Memphis* and *Zoan* were afterwards founded, having not yet obtained a ſufficient depth of ſoil to bring down a colony to till it. Some

[5] *Herod. Eut.* § 4, 5. *Diod. Sic.* l. iii. p. 101. *Ariſt. Meteorol.* l. i. cap. 14.
[6] *Plin. Hiſt. nat.* l. ii. cap. 85. [7] *Diod. Sic.* l. i. p. 12.
[8] *Ariſt. Meteorol.* l. i. cap. 14.

centuries after, when *Memphis* and other cities of the *Lower Egypt* were built, the banks, together with the land on each ſide of them, might have been raiſed, as we will ſuppoſe, as high as E, F, whereby a ſtill greater height of water would be required to refreſh them; which, in the time of *Herodotus*, was ſixteen cubits. And in this manner, it may be preſumed, that the foundation of the *land of Egypt* was firſt laid and afterwards augmented; the inundation bringing annually along with it an addition of ſoil, whereby not only the land, that was made already, would be raiſed and augmented; but the ſoil would be likewiſe ſpread and extended to the very ſkirts of the valley, the ſea would be gradually excluded, and conſequently a foundation laid for new acquiſitions to the country. Something like this we have recorded in *Abmaſudi*, as he is quoted by *Macrizi*. *It is the opinion* (ſays he) *of philoſophers and naturaliſts* (alluding to *Ariſt. Meteorol.* l. i. cap. 14.) *that the* Nile *once covered its country, and that it ſpread itſelf from the* Upper Egypt (*i. e.* Said *or* Thebais) *to the* Lower. *And that upon the waters retiring, ſome places of it began to be inhabited; till at length, the water continuing to flow off by little and little, the land was filled with cities and dwellings.*

That Egypt *is a gift of the* Nile, *and gradually increaſing, appears from ſeveral arguments.*

That *Egypt* was raiſed and augmented in this manner, appears from ſeveral circumſtances. For, whereas the ſoil of other plain and level countries is uſually of the ſame depth, we find it here to vary in proportion to the diſtance of it from the river; being ſometimes, near the banks, more than thirty feet high, whilſt, at the utmoſt extremity of the inundation, it is not a quarter part of ſo many inches. The method of raiſing mounds [9], in order to ſecure theſe cities from the violence of the inundation, is another argument. For as it may be preſumed, that all the cities of *Egypt* were originally built upon artificial eminencies [1], raiſed for that purpoſe; ſo, when the circumjacent ſoil came to be ſo far increaſed, as to lie nearly upon a level with them, the inhabitants muſt have been obliged either to mound them round, or elſe to rebuild them. The former experiment ſeems to have been often repeated at *Memphis*; as the want thereof may have been the reaſon, why we are not ſure, at preſent, even of the place, where this famous city was founded. The ſituation likewiſe of the temple, in the city of *Bubaſtis*, is another circumſtance in favour of this *hypotheſis*. For when *Bubaſtis* was rebuilt, and raiſed higher, to ſecure it from the inundation; the temple [2], for the beauty of it [3], was left ſtanding in its primitive

9 *Herod. Euterp.* § 137. *Diod. Sic.* l. i. p. 36 & 41. *Strab. Geogr.* l. xvii. § 3.

1 *Diod. Sic.* p. 23.

2 *Herod. Eut.* § 138.

3 Id. ibid.

ſituation;

ſituation; and being therefore much lower than the new buildings, the inhabitants are ſaid to have *looked down upon it* from every part of the city. In like manner *Heliopolis*, which, *Strabo* tells us, was built upon an eminence [4], is now one of the plains of *Egypt*, and annually overflowed, as I myſelf have ſeen, with ſix or eight feet of water. Neither is there any deſcent, as formerly, from *Babylon* (*viz.* thoſe parts of it that were built under the caſtle) to the river [5]; but the interjacent ſpace is all of it upon a level. Upon the ſkirts likewiſe of the inundation, near the *pyramids*, where the *ſphinx* is erected (which may be the model for other places) the ſoil, excluſive of the ſand I have mentioned, is there ſo far accumulated, that very little is wanting to cover the whole body. With regard alſo to the excluſion of the ſea (the expelling of *Typhon*, as it was named in their ancient mythology) we are told, that *Dami-ata*, which lies now at ſeveral miles diſtance from the ſea, was, in the time of St. *Lewis*, *viz.* A. D. 1243, a ſea-port town, or at a mile's diſtance only from the ſea [6]; that *Fooah*, which three hundred years ago was at the mouth of the *Canopic* branch of the river, is now more than ſeven miles above it: and again, that the land, betwixt *Rozetto* and the ſea, has, in no longer ſpace than forty years, gained half a league. Such large acceſſions being continually made to the ſoil, would occaſion ſeveral of the more ancient cities, ſuch as *Manſoura*, *Dami-ata*, and *Tineh* (for the preſent *Kairo*, or *Babylon*, or *Latopolis* as it was anciently called, is built in a higher ſituation, out of the reach of the *Nile's* inundation) to be in the ſame condition with *Memphis*, were they not, in a great meaſure, ſecured by ſome neighbouring mounds [7]; and was not the ſtream itſelf at the ſame time diminiſhed, by being conducted, in ſo convenient a manner, through a number of channels, that every part of the country may receive the benefit of the inundation.

The quantity of mud that is left annually by the Nile.

However, it will be difficult to determine, with any exactneſs, what quantity of mud is thus annually left by the *Nile*. A late au-

[4] *Strab. Geogr.* l. xvii. p. 553.

Ῥᾶχις δ' ἐστὶν ἀπὸ τῆ σεφαλοπέδε [Babylonis] ἡ μέχρι Νείλε καθήκεσα, δι' ἧς ἀπο τῆ πολεμῆ τροχοὶ ἡ κοχλίαι τὸ ὕδωρ ἀνάγεσιν. Id. ibid. p. 555.

[6] Vid. *Deſcription de l'Egypte* par M. *de Maillet*, p. 96, &c. The ſituation of *Damiata* upon the ſea-coaſt, A. D. 1243. ſeems to be confirmed by *Abdollaliph* (p. 5.) who lived about that time. Damiatæ latitudo, quæ eſt *ultimus Ægypti terminus*, eſt graduum triginta unius & tertiæ partis gradus. *Willerm* of *Tyre*, A. D. 1169, tells us, that *Damiata* a mari quaſi milliario diſtabat.

[7] It was, by pulling down ſuch mounds as theſe, by Sultan *Melladine*, that the *Chriſtian* army, then encamped near *Kairo*, were drowned, A. D. 1199.

thor [8] makes it equal to a tenth part of the water; a weight certainly too great to be buoyed up by the ſtream. According to the quantity of ſediment that is precipitated, in their water-jars, by rubbing the ſides of them with bitter almonds, the proportion ſeemed to be ſcarce one thirtieth part, or about one quart of wet mud to eight gallons of water. But by putting ſome of the ſame water to ſettle in the tube of a barometer, thirty two inches long, I found the mud, when perfectly dry, to be nearly $\frac{1}{120}$ part [9]. And as in moſt places that are overflowed, the water muſt either intirely ſtagnate, or continue at leaſt without any conſiderable motion (inaſmuch as it is uſually admitted by ſluices, and kept in on every ſide by banks made for the purpoſe,) it is probable, that a proportionable quantity of ſoil (the depth of the water being always regarded) may have been left upon the ſurface. But I am ſenſible, that trials and experiments of this kind ought to be carefully examined and repeated, before any *hypotheſis* is built upon them. I therefore dare propoſe it only as a conjecture, *That*, according to the computation of time by the vulgar *æra* [1], *this acceſſion of ſoil, ſince the Deluge, muſt have been in a proportion of ſomewhat more than a foot in a hundred years.*

It amounts to about a foot in a hundred years.

This, tho' we cannot abſolutely prove it, appears highly probable, by comparing only the preſent ſtate and condition of *Egypt* with what it was two or three thouſand years ago. For *Herodotus* [2] acquaints us, that, in the reign of *Myris*, if the *Nile* roſe to the height of eight *Grecian* cubits, all the land of *Egypt* was ſufficiently watered; but that in his time, which was not quite nine hundred years after *Myris*, the country required fifteen or ſixteen. The addition of ſoil therefore (by ſuppoſing them to have been fifteen cubits only) will be ſeven *Grecian* cubits, or an hundred and twenty ſix inches, in the ſpace of nine hundred years. But, at preſent, the river muſt

[8] La viteſſe de cet accroiſement eſt aiſée à comprendre, lorſqu'on ſe repreſente, que les eaux du Nil ſont ſi troublées & ſi bourbeuſes dans le tems de l'augmentation de ce fleuve, que les boues & les ſables ſont au moins la dixiéme partie de ſon volume. *Deſcription de l'Egypte*, par M. *Maillet*, p. 103.

[9] Dr. *Perry* diſagrees with me in this, as being by far too great a proportion; which he makes to be only $\frac{1}{650}$ part; or five drams and fifteen grains of ſoil to thirty pound weight of water, either evaporated or filtrated. *View of the Levant*, p. 288. There will undoubtedly be great difference in the muddineſs and quality of the water, according as it is taken up in the middle of the chanel, or near the banks, where it is often diſturbed, as the water uſually is, that is brought all the day long from *Bulac*, upon camels, to *Kairo*. I know no other way to account for this difference: for that a much greater quantity than this muſt be left by the *Nile*, will appear from the next paragraph, and the following chapter.

[1] *Viz.* by following the *Hebrew* text. [2] *Herod. Eut.* § 13.

riſe to the height of twenty *Stamboline* cubits (and it uſually riſes from twenty two to twenty four) before the whole country is overflowed. *Kalkaſendas* (in his treatiſe of the *Nile*) acquaints us, that "the *Nile*, from *an. Hej.* 13 to *an. Hej.* 700, had riſen *gradually* "from fourteen to ſixteen or ſeventeen cubits." He adds further: "As for our time (*viz. an. Hej.* 806; *i. e.* A. D. 1403) the ſoil is "raiſed by the falling of the mud, that is brought down with the "water; and the bridges (*ſuch, we may imagine, as were formerly built over the canals, when the* Nile *did not riſe ſo high*) "are broken down, "or covered, (*as we may again imagine, by the augmented impetuoſity or height of the ſtream*;) "and the *Nile*, by the appointment of the "moſt high God, is reduced to theſe three ſtates: the inſufficient, "which is ſixteen cubits more or leſs; the middle, which is from "ſeventeen to eighteen cubits, or thereabouts; and the high, which "is when it exceeds eighteen cubits; and ſometimes it will riſe to "twenty." Since the time therefore of *Herodotus*, by making twenty cubits only the ſtandard, *Egypt* has gained two hundred and thirty inches of ſoil. And again; if we look back from the reign of *Myris* to the time of the *Deluge*, and reckon that interval by the ſame proportion, we ſhall find the whole perpendicular acceſſion of ſoil, from the *Deluge* to A. D. 1721, to be five hundred inches. The land of *Egypt* therefore, agreeably to the *æra* and conjecture above, and reckoning by a cubit of twenty five inches only, has gained forty one feet eight inches of ſoil in 4c, 2 years[3]. Thus, in proceſs of time, the whole country may be raiſed to ſuch a height, that the river will not be able to overflow it; and *Egypt* conſequently, from being the moſt fertile, will, for want of this annual inundation, become one of the moſt barren parts of the univerſe[4]. The objections that have been made to this *hypotheſis* will be hereafter conſidered.

Herodotus's *account of* Egypt *agreeable to Scripture-hiſtory.*

However, among the many doubts and difficulties, that have been already mentioned or may be hereafter raiſed upon this ſubject, there will always be room to make this very juſt and important obſervation; *That if* Herodotus *had duly conſidered the annual increaſe of the ſoil, and carried back his remarks a thouſand years beyond the time of* Myris, *he could not have given the leaſt credit to that long ſucceſſion of*

[3] *Viz.* by reckoning according to Mr. *Bedford's Tables*, from the *Deluge* to A. D. 1721, the year when I was in *Egypt*.

[4] *Macrizi*, in his account of the *Nile*, has this obſervation; *viz.* "If *Egypt* (ſays he) "ſhould not receive a ſufficient quantity of moiſture from the gradual increaſe "and riſing of the *Nile*, and the water retire from it afterwards, by the beginning "of ſeed-time; the country would be intirely ruined, and the inhabitants would pe-"riſh with hunger."

dynaſties,

dynaſties[5], *which make up the Egyptian hiſtory.* For ſince, according to his own reflections, *Egypt* is the entire, though gradual gift of the *Nile*; there muſt have been a time (and that not long before the period laſt mentioned) when it was either of the ſame barren nature with the deſerts that ſurround it, or elſe that it muſt have been quite covered with water; conſequently, there could have been no habitable country for theſe pretended princes to have reigned over. Our hiſtorian himſelf ſuppoſes it to have been originally an arm of the ſea; and the time, pretty nearly, when it was ſo, he had learnt from the *Egyptians*, who aſſured him, that *Menes*[6] was the firſt king, who reigned in the world; that, in his time, all *Egypt*, except the country of *Thebes*, was one continued moraſs; and that below the *Lake of Myris* no part of the preſent land appeared. Now as *Menes* or *Oſiris*[7] was the ſame with *Mizraim*, the ſon of *Cham*[8], the firſt planter of *Egypt*; as all the foregoing circumſtances ſo well agree with the *Moſaic* account of the flood and of the diſperſion of mankind after it; *Herodotus* does hereby confirm the very truth and certainty of the *Scripture-chronology*; and at the ſame time overthrows the authority of all thoſe extravagant annals and antiquities, that were ſo much boaſted of by the *Egyptians*[9].

[5] *Herod. Eut.* § 43 & 145. The like account we have in *Diodorus* (l. i. p. 13 & 15. & p. 28.) at the ſame time he acknowledges, that the *Egyptians* boaſt of aſtronomical obſervations (ἐξ ἐτῶν ἀπίρων, p. 51.) from an incredible number of years. [6] *Herod. Eut.* § 11.

[7] Vid. *Shuckford's Connect.* vol. i. p. 205. [8] *Gen.* x. 6.

[9] *Herodotus*, always too credulous with regard to theſe boaſted antiquities of the *Egyptians*, inſiſts likewiſe that *circumciſion* was much earlier received by them, than by the *Syrians* of *Palæſtine*; i. e. the *Hebrews*, or *Iſraelites*; for the *Philiſtines* themſelves, who were originally *Egyptians* and gave name to the country, were uncircumciſed. Now by conſidering *Gen.* xlv. 12. in the original text, agreeably to the *Hebrew* diction and brevity of expreſſion, we may receive one plauſible argument, why *Herodotus* may be equally miſtaken in this aſſertion. For the *rabbinical* commentators obſerve, upon this verſe, (which we tranſlate, *And behold your eyes ſee, and the eyes of my brother Benjamin, that it is my mouth that ſpeaketh unto you*) that *Joſeph* gave the *patriarchs* therein, three proofs of his being their brother. The firſt was the token of *circumciſion*, peculiar at that time (as they affirm) to the family of *Abraham*; which he is ſuppoſed to have diſcovered, by unfolding his garment, whilſt they ſtood *near him*, and bidding them regard it. *Behold*, ſays he, *your eyes ſee*, by this token, that I am no ſtranger, but of the lineage of *Abraham*. And then to ſhew that he was not deſcended from *Iſhmael*, he lays down, for his ſecond proof, the near reſemblance of *his own* features to *thoſe* of his brother *Benjamin*, who was born of the ſame mother. *And behold* (continues he) *the eyes* (or countenance) *of my brother Benjamin*, how nearly they reſemble my own. The third proof was his language; *Moreover*, he adds, *it is my mouth that ſpeaketh unto you.* For he had

SECT.

SECT. IV.

Some additional proofs and conjectures, concerning the augmentation, which Egypt *receives annually from the* Nile.

THO' it ſeems to be fairly proved and collected, as well from the foregoing ſection, as from the quotations which finiſh the diſſertation concerning the ancient ſituation of *Memphis*, that *Egypt* in general, no leſs than that city in particular, muſt have ſuffered great alterations, and received conſiderable augmentations from the *Nile*; yet the arguments and matters of fact there urged and alledged, do not appear to have been ſufficiently clear and evident to the learned author of *The deſcription of the Eaſt*. And as a proper regard ought

now begun to talk with them in their own tongue, having hitherto converſed with them, *in the ſtrange language he had learnt*, by an interpreter. We may add ſome further light and authority to this expoſition, by the following obſervations; *viz.* firſt, that notwithſtanding he had already told them, *he was Joſeph*, (ver. 3.) yet, this muſt undoubtedly have appeared to *Reuben* in particular, to have been altogether impoſſible; inaſmuch as he had all along underſtood, that *Joſeph* had been devoured by wild beaſts. It muſt ſeem no leſs improbable to the reſt. For as they were too conſcious of their having ſold him to the *Iſhmaelites* (who were generally employed in the exchange of merchandiſe from one diſtant place to another) they could not entertain the leaſt imagination of his being the ſecond perſon in *Egypt*; or even that he ſhould be a ſettled inhabitant of that kingdom. Beſides all this, the *Egyptian* dreſs, and fifteen years difference in his age, ſince his brethren ſaw him, (when he was then a youth only,) would occaſion ſuch an alteration in his perſon, as might well demand, in the preſent ſurprize they were in, ſome further proof, than this bare declaration, that he was *Joſeph*. *Secondly*, His appealing, after he had addreſſed himſelf to them all, to the ſingle teſtimony of *Benjamin*, how ſuperior a token ſoever it may be interpreted of *Joſeph's* peculiar regard and affection for *Benjamin*, yet it could not, in this light and upon this occaſion, be of the leaſt moment or conſequence; nay, it ſeems rather to have been altogether incongruous and abſurd. For *Benjamin* was only a child, when *Joſeph* was ſold into *Egypt*; conſequently it would have been improper to have called upon him as an evidence, who could not be capable, at ſuch an age, of retaining the leaſt notion or remembrance of *Joſeph's* perſon. *Thirdly*, *Joſeph's cauſing every man to go out*, (ver. 1.) and *praying his brethren to come near him*, (ver. 4.) ſhould inſinuate, that he had ſomething to impart to them of ſecrecy and importance; which was not to be expoſed to the ridicule or wanton curioſity of the uncircumciſed *Egyptians*. Otherwiſe there appears to be nothing, in this whole narration, which is told with ſo much elegance and ſimplicity, that could in any manner offend, or which indeed would not rather have excited the greateſt pleaſure and ſatisfaction in the *Egyptians*. For we learn, (ver. 16.) that as *ſoon as it was known that Joſeph's brethren were come, it pleaſed Pharaoh well, and all his ſervants*.

It ſeems to be implied alſo, *Jer.* ix. 25, 26. that the *Egyptians* were not circumciſed at the time when that prophet lived, *viz.* 630 or 640 years before *Chriſt*, which was not 200 years before *Herodotus* flouriſhed and wrote his hiſtory.

to

to be paid to the ſentiments and obſervations of a curious gentleman, who has been upon the ſpot, and who has ſaid every thing, I preſume, that can be urged againſt my *hypotheſis*, a candid and impartial examination of his reaſonings and objections thereupon, may poſſibly clear up the preſent difficulties, and conſequently put an end to all diſputes upon this ſubject for the future. Now it is allowed by this author, (vol. i. p. 39.) that *the* Nile, *by overflowing of* Memphis, *might bury or cover it over with mud, as if ſuch a place had never been.* And, that the mud of the *Nile* is capable of bringing about ſuch or greater revolutions, appears from *the depth of five feet*, which (he tells us, p. 200.) *is left behind it every year in the* Mikeas. Nay, the quantity of mud brought down by the *Nile*, appeared to be ſo very extraordinary to *Herodotus* [1], that he ſuppoſes the *Red-ſea*, provided the *Nile* was turned into it, would, in the ſpace of twenty thouſand years, be filled up by it.

The Nile, *where it overflows, lodges always ſome ſediment.*

Now, if the *Nile* has the property of lodging its ſediment in one place, why may it not have the like property of lodging it in others? And if the *Nile* has accumulated ſoil at one time, why not ſucceſſively even to this day? And though the ſoil annually lodged upon the ſurface, in theſe latter ages, may, from ſmaller depths of the ſtagnating water, be gradually diminiſhed; yet ſtill, where the *Nile* is admitted, and of a ſufficient height to overflow, there will always be ſome proportional ſediment left behind; and conſequently the land muſt be always increaſing. When therefore the *Nile*, by thus raiſing and augmenting its banks (*i. e.* the whole tract of land which it overflows) is at length confined and collected within its own chanel; and thereby becomes incapable of preparing the adjacent plains for tillage, by overflowing them; the event and conſequence ſeems to be very apparent; that, for want of this annual inundation (as there are no former and latter rains, as in other countries) *Egypt*, *from being the moſt fertile*, by being overflowed, muſt, as I have aſſerted, *become the moſt barren part of the univerſe*, for want of it. I do not indeed ſay that this will happen in our times: I was only to ſhew the poſſibility of it, in ſome future generations.

Where the Nile *does not overflow, there* Egypt *muſt be barren.*

Objections to the ſuppoſed augmentation of the ſoil.

Yet, notwithſtanding it is granted, in ſeveral places, by this gentleman [2], that conſiderable additions have been and are ſtill making to the ſoil, yet it is urged, (p. 250. ibid.) that, *by the perpetual fall-*

[1] Εἰ ὧν δὴ ἐθελήσει ἐκλείψαι τὸ ῥέεθρον ὁ Νεῖλος ἐς τῶν τοῦ Ἀραβίου κόλπον, τί μιν κωλύει ῥέοντ' τότε χωσθῆναι ἐνιὸς γε δισμυρίων ἐτέων; *Herod.* p. 104.

[2] "There are ſome grounds to think that the ſoil of *Egypt* has riſen ſome years "near half an inch, without conſidering what is carried away of the produce of the

ing of the stony particles, brought down with the Nile, *the channel itself rises in proportion to its banks.* And besides *(ibid.)* that *great quantities of soil are actually wasted or carried away by the crop:* and still, (p. 198.) *provided the lands did rise so high in* Lower Egypt *as not to be overflowed, they would only be in the same condition with the people of* Upper Egypt, *who are obliged to raise the water by art.* These are the principal objections which are advanced against this part of my *hypothesis.*

A country without water is naturally barren.

Now, with regard to the last objection, it may be observed of *Egypt*, as well as of all other countries, that where they are not, in some way or other, watered and refreshed, they must of course be barren, and incapable of producing any crop. This we have confirmed by *Strabo* [3], who, in describing the course of the *Nile*, from *Æthiopia* to *Egypt*, tells us, *that all those parts were inhabited, which were overflowed by the* Nile; *but where the lands were* too high, or lay out of the reach of *the inundation, there they were barren and uninhabited for want of water.* Neither am I speaking of what may be done, by artificial means and contrivances, such as *Strabo* [4] may be

" earth. For on the banks of the *Nile* I observed that the soil was in several strata, " or cakes, of about that thickness." *Descript. of the East*, p. 250. " Nothing " certain can be said as to the rise of the soil; for these banks being high, possibly " their strata of earth might be made only at the time of such inundations [*they* " *could be made at no other*] as overflowed those banks, where we are to suppose [*but* " *for what reason?*] the sediment must have been greater than in the ordinary over- " flow. It is possible also, that this might not be the sediment of one year." *p.* 251. " The ground rising proportionably at the sea and every where else." *p.* 198. " The soil of *Egypt*, except what additions it has received from the overflow of the " *Nile*, is naturally sandy." *p.* 197. " It is salt, or nitre, and the rich quality of " the earth, which is *the sediment of the water of the Nile*, that makes *Egypt* so fer- " tile." *ibid.* " *A cubit more* of water might be necessary to overflow the lands " plentifully before *Petronius's* time, than what was in *Herodotus's*, *the earth being* " *risen* and the canals made." *p.* 252. " The ground has risen seven feet and an " half at *Heliopolis*." p. 25. " The ground is so much risen, that I could not come " to any certainty with regard to the height of their pillars." *p.* 215. " The pillars " of *Hadjar Silcili* [*which is built on a rock, and therefore without the reach of the* " *Nile*] are the only columns I saw to the bottom." *p.* 217.

[3] Κοινὰ μὲν γάρ τινα καὶ ταύτῃ τῇ χώρᾳ καὶ τῇ συνεχεῖ καὶ ὑπὲρ αὐτὴν τῇ τῶν Αἰθιόπων ὁ Νεῖλος παρασκευάζει, ποτίζων τε αὐτὰς καὶ τὰς ἀναβάσεις, καὶ τοῦτ' οἰκήσιμον αὐτῷ τὸ μέρος ἀπολιπὼν μόνον τὸ καλυπτόμενον ἐν τοῖς πλημμυρίσι, τὸ δ' ὑπερδέξιον καὶ μετεωρότερον τοῦ ῥεύματος πᾶν, ἀοίκητον ἑκατέρωθεν διεξιὼν καὶ ἔρημον διὰ τὴν αὐτὴν ἀνυδρίαν. *Strab. Geog.* l. xvii. p. 541. *Can the meadow* (אחו) *grow without water?* Job viii. 11.

[4] Ἡ δὲ περὶ τὸν ποταμὸν πραγματεία διαφέρει τοσοῦτον, ὅσον τῇ ἐπιμελείᾳ νικᾷν τὴν φύσιν. Φύσει γὰρ πλείονα φέρει καρπὸν, καὶ ποτισθεῖσα μᾶλλον. Φύσει δὲ καὶ ἡ μείζων ἀνάβασις τοῦ ποταμοῦ πλείω ποτίζει γῆν, ἀλλ' ἡ ἐπιμέλεια πολλάκις, καὶ τῆς

ſuppoſed to deſcribe in the time of *Petronius*; ſuch likewiſe as are, at preſent, made uſe of in the *Upper Egypt*. I am ſpeaking of the conſequences, which, without theſe aſſiſtances, muſt naturally attend a country, that is deſtitute of all manner of refreſhment, from ſhowers or inundations: ſuch, as this author acknowledges the *Upper Egypt* to be, at this time. For it is a matter of fact, that the greateſt part of the *Upper Egypt*, by lying too high to be regularly overflowed by the *Nile*, is able to produce little or nothing at all for the ſuſtenance of mankind; except ſuch portions of it, as are kept conſtantly watered (as he himſelf has obſerved) by the immenſe labour and contrivance of the inhabitants.

Lower Egypt, *in proceſs of time, may be in the ſame condition with the* Upper.

As then it is agreed by us both [5], that all *Egypt* is or has been, at one time or other, the gradual gift of the *Nile*, this *hypotheſis*, which I maintain, ſuppoſes no other change and alteration to happen, in proceſs of time, to the plains about *Memphis* and the *Lower Egypt*, than what have already happened to the *Upper* [6]; agreeably to its higher antiquity, and to the longer courſe of ages, that the *Nile* has been beſtowing its bounty upon it. The preſent ſtate and condition therefore of the *Upper Egypt* is ſo far from being an objection, that it proves the very point in diſpute; viz. *That the* Nile, *in a term of years, may ſo far accumulate its ſoil upon the adjacent plains of the* Lower Egypt *(as it hath already done in the* Upper) *that it will not be capable to overflow them.*

No ſtony particles brought down by the river.

As to the other objections, we may even diſpute the very facts, upon which they are founded. For, as to the firſt, it can hardly be admitted, that any of the original ſtony particles, brought down, from *Æthiopia*, by the *Nile*, ſhould be ſo ſtrongly buoyed up by the ſtream, as not to ſubſide, a long time before their arrival at the *Cataracts*. Neither could any further acceſſion of ſtony particles, that ſhould be engaged afterwards by the ſtream, either in paſſing by theſe *Cataracts*, or the ſandy iſlands that lye in its courſe afterwards,

φύσεως ἐξίσχυσεν ἐπιλειπούσης, ὥστε καὶ κατὰ τὰς ἐλάττους ἀναβάσεις τοσαύτην ποτισθῆναι γῆν, ὅσην ἐν τῷ μείζοσι, διά τε [τὴν] τῶν διορύγων, καὶ τῶν παραχωμάτων. Ἐπὶ γῆν τῶν πρὸ Πετρωνίου χρόνον ἡ μεγίστη μὲν ἦν φορὰ καὶ ἀνάβασις, ἡνίκα ἐπὶ τεσσαρεσκαίδεκα πήχεις ἀνέβαινεν ὁ Νεῖλος· ἡνίκα δ' ἐπ' ὀκτὼ, συνέβαινε λιμός. Ἐπ' ἐκείνου δὲ ἄρξαντος τῆς χώρας, καὶ δώδεκα μόνον πληρώσαντος πήχεις τοῦ Νείλου μέτρου, μεγίστη ἦν ἡ φορά· καὶ ὀκτώ ποτε μόνον πληρώσαντος, λιμοῦ οὐδεὶς ᾔσθετο. *Strab.* l. xvii. p. 542.

[5] See the quotations from this author, p. 392, 3.

[6] This is even acknowledged, by the author of the *Deſcription of the Eaſt*. "At "that time, *ſays he*, before the canals were made, and when *Lower Egypt* was a moraſs, "the upper parts of *Egypt* might be overflowed, and receive that acceſſion of a rich "ſoil, which makes it ſo fruitful." Vol. i. p. 197.

continue

continue long to be ſupported; let the ſtream be never ſo rapid and violent. They, from their own weight and *ſpecific gravity*, muſt either be dropped, of courſe, as ſoon as the extraordinary rapidity of the current ceaſes; or elſe they muſt be lodged immediately at the very foot of thoſe very rocks, or along the ſkirts of thoſe very iſlands, from whence they may be ſuppoſed to have been thus violently rubbed off and obtained.

The beds of rapid rivers rather grow lower, than increaſe.

Nay, it may well be imagined, that the beds of rivers, particularly thoſe which, like the *Nile*, are of a rapid nature, do rather grow lower, than riſe or increaſe. For their bottoms being conſtantly diſturbed, by the violent motion and friction of the current; one particle of ſand or gravel muſt impel another, till the velocity of the ſtream abates, or till theſe particles meet with ſome impediment or obſtruction. And this may be the cauſe, why rivers are generally the deepeſt, in their middle channel; becauſe the current is there the ſtrongeſt; it may be the cauſe likewiſe, why eddies, whirlpools, the immediate outlets from mills, ſluices, *&c.* are uſually of great depths; becauſe the ſtream, in theſe caſes, plunges itſelf here with greater violence, and putting thereby the neighbouring particles of ſand and gravel in motion, protrudes them before it. It is owing alſo to the ſame impulſive force and action, that the ordinary depths of rivers are deeper in ſome places than in others; the deeper being uſually ſucceeded by flats and ſhallows, whither theſe looſe ſandy particles are driven; and where they remain quiet and undiſturbed, till the next inundation.

Of the bars *of rivers.*

Of the ſame nature and origine likewiſe are the *bars*, as they are called, of rivers; which are a like collection of ſand and gravel, forced down by the impetuoſity of the ſtream; till, upon their nearer approach to the ſea, they become themſelves retarded, and the more weighty contents of them ſtopped and arreſted, by the heavier column of the ſea-water, or by the more violent and ſuperior force and activity of its waves. As the mouths of the *Nile*, therefore, and particularly the *Canopic*, which is the largeſt, are remarkably incommoded with banks of this kind, (which render the navigation oftentimes exceedingly dangerous;) there is no ſmall probability, that the bed of the *Nile* muſt be ſo far from receiving any annual increaſe, as it is objected, from theſe ſtony particles, that it muſt be a conſiderable loſer, by ſuch large contributions of them, as are conſtantly accumulated at thoſe places. As to the mud, properly ſo called, it ſeems to make little or no part of theſe obſtructions; for, being itſelf of a light nature and eaſily buoyed up by the ſtream, it is viſibly carried off into the ſea, to the diſtance of ſeveral leagues;

The great quantity of ſand lodged there.

Some mud of the Nile *carried off into the ſea.*

where it is laying a foundation for future acceſſions to the land of *Egypt*.

If the bed of the Nile *riſes, by the precipitation of its ſtony particles, the beds of other rivers would riſe in proportion.*

Beſides, if the bed of the *Nile* was raiſed by the ſubſiding of the ſtony particles, brought along with the ſtream; the like would happen to all rivers, in proportion to their muddineſs. Becauſe it may be preſumed, that the mud, buoyed up by rivers, is all of the ſame light nature and conſiſtence, however it may accidentally differ in colour or other reſpects. As then there are few or no rivers, but what are muddy in ſome degree or other; and not only ſo, but are at ſome ſeaſons, for ſeveral days or weeks together, no leſs muddy than the *Nile*; why ſhould not they, by precipitating the ſtony particles (provided there were any) of their mud, have the like property of raiſing their beds and channels? We need not indeed inſiſt upon their receiving equal augmentations with the bed of the *Nile*; it is enough, in the preſent queſtion, if they receive any at all; inaſmuch as *this*, let it have been annually never ſo ſmall and inconſiderable, yet, in proceſs of time, and, in the courſe of four thouſand years (reckoning from the *Deluge*, or the beginning of rivers) muſt have become viſible and apparent. But notwithſtanding the want of that annual increaſe and addition to their banks, which the *Nile* can boaſt of; (and, whereby it keeps up, as is pretended, *the ballance betwixt the quantity of water and the capacity of the channel that is to convey it*;) nothing of this kind has been obſerved in the *Danube*, the *Rhine*, the *Thames*, or any other noted river. Theſe have always continued the ſame; their channels ſtill contain the ſame quantity of water, which they may originally be ſuppoſed to have done; and, except upon extraordinary rains, and the floods and inundations conſequent thereupon, are never known to be too full or overcharged. Whereas, had there been any gradual additions made, by theſe means, to their beds; theſe very beds muſt have been gradually filled up, and their ſtreams, conſequently, would have been gradually excluded; and, being thus excluded and thereby under no confinement, they would long ago have converted all their adjacent plains into lakes or marſhes.

No part of the ſoil carried off by the crop.

But it is further urged, that, provided the *Nile* ſhould lodge any conſiderable quantity of ſediment upon the ſurface, yet *a great part of it would be carried off annually by the crop or produce of the ſoil.* Yet, it may be replied, that if the whole of it is not carried off, that which remains, will ſtill contribute, though in a ſmaller degree, to the ſuppoſed augmentation. By this means, indeed, the operation will be ſlower, though no leſs ſure and certain upon that account. For the preciſe time, when this augmentation is to be brought

brought about, is not disputed; but whether such an augmentation will happen at all. And that there is and has been an augmentation, which consequently may, and probably will continue, is even acknowledged by this author, as well as proved in the foregoing chapter, (*Not.* 2. *p.* 392, 3.) Little stress therefore can be laid upon this objection, which does not deny the fact, but only retards the progress of it.

Few or no earthy particles consumed in vegetation.

It appears, by several experiments [7], that earth (commonly so called) or mould is very little concerned in vegetation; water being the principal, and, in effect, the only agent; a certain genial and proper warmth being still supposed to accompany it. For, that water alone may be sufficient for this purpose, appears from hence, that, *from it, salt* [8], *spirit, earth, and even oil may be produced.* And again [9], *fair water may, by the seminal principle of mint, pompions, and other vegetables, be converted into bodies answerable to their seeds.* And again [1], *In plants, of the various corpuscles found in the liquors of the earth, and agitated by the heat of the sun and air, those that happen to be commensurate to the pores of the root, are impelled into it, or imbibed by it, and thence conveyed to other parts of the tree, in form of sap, which passing through new strainers, receives the alterations requisite to their conversion into wood, bark, leaves, blossoms, fruit, &c.* By this account, the greatest tree wastes no more of the earth or soil wherein it grows, than the smallest thistle; the earth serving, all along, as a proper support, defence, or covering only for the root; or else, as a convenient strainer and corrector of the nutritive and vegetative fluid.

The vegetative particles take up little space.

Nay, upon a supposition that some vegetative particles were lodged in this sediment, (and we will suppose a great many,) yet, how infinitely small must they be, to enter into these roots, and to be conveyed through these delicate strainers? They, of what subtile substance soever they may consist, are rather the objects of our reasoning faculties, than of the eye or the touch; and consequently, what loss or consumption soever may be made of *them*, it will scarce, if at all, be perceived in that great mass of matter, from whence they were secreted.

7 Vid. *Boyle's Works abridg'd*, vol. iii. p. 282, &c.

8 Id. ibid. p. 287. 293. 9 Id. ibid. p. 340.

1 Id. vol. i. p. 440. Vid. *Philosoph. Transact.* vol. xxxvii. p. 418. where bulbs are said not to grow so well in muddy water as in clear. The known experiment of raising sallads, *&c.* upon flannel *&c.* shews how little concern earth has to do in vegetation.

The ground does not ſink where vegetables grow.

But we ſee, as theſe objections are continued, (p. 251.) that *the ground viſibly ſinks, where vegetables are produced and taken away, and there is no acceſſion of matter.* It muſt indeed be acknowledged, that every plant, pluckt up by the root, and every tree dug out of the ground, will leave ſome cavities and traces behind them; but we muſt, at the ſame time, deny the conſequence that is here drawn from theſe appearances. For theſe holes and cavities, whether they be ſmall or great, are not made by a proportionable quantity of earth or ſoil, or *vegetative matter* (if that will make more for the purpoſe,) which may have been gradually taken up and conſumed by theſe plants. They are made by the gradual accretion and expanſion of their roots; which, like ſo many wedges, force themſelves into the adjacent ſoil, loam, or gravel; obliging it thereby to quit its native ſituation; and, from lying, naturally, in a more looſe and open texture, to become more cloſe and compreſſed. No earth conſequently can be loſt or conſumed by this expanſion of their roots; it becomes only, by theſe means, more crouded and compact.

It is generally higher, or elſe upon a level.

Nay, ſo far is it from being a matter of fact, that *the ground viſibly ſinks, where vegetables grow, without ſome new acceſſion of matter* be made to it; that the contrary, I preſume, will be found by obſervation; and, for one inſtance where it takes place, (which if there ſhould, may perhaps be eaſily accounted for ſome other way,) there are numbers of others, where the ground is either higher, or at leaſt upon a level with what lies contiguous to it.

The ſoil is of the ſame height or higher than it was immediately after the Deluge.

In the produce of the leſſer kind of vegetables, ſuch as graſs and corn; no leſs than of the greater, ſuch as ſhrubs and trees; the ground has probably continued, much in the ſame height, wherein it was left a little after the *Deluge*. Or rather, from the rotting and corrupting of the roots, ſtalks, leaves, *&c.* it may, in ſome places, be a little raiſed and augmented. Inſomuch that the very curious and learned *Rudbeckius* [2], from the conſideration of theſe and ſuch like occaſional acceſſions of ſoil, has attempted to eſtimate the age and antiquity of this terraqueous globe. Where the ground is manured, there it muſt ſtill riſe higher, than by this natural proceſs; becauſe the more ſubtle and volatile particles of it can at moſt be concerned in vegetation, while the infinitely greater ſhare of groſſer particles are left behind.

The rich plains of Africa *never manured.*

And, that very little or nothing at all of the real ſoil, the ancient and primogenial covering of this globe, is carried off by plants and

[2] *Ol. Rudbeckii Atlantica* ſive *Manheim*, lib. i. c. 6. *Nouvelles de la repub. des lettres, mois de Janv.* 1685.

vege-

vegetables, appears from comparing the preſent ſtate of the plains of *Africa*, with what they were in former ages. For theſe are never manured; yet the ſame fertility in the ſoil, and the like plenty and abundance, that have been recorded of their crops, for above theſe two thouſand years, continue to this day. Now if the nature of vegetables was ſuch, as to make the ground they grow upon, *both hollower and lower, by gradually waſting and conſuming it*; *Africa*, by this time, would have been drained of its whole ſtock; and nothing could have remained, of this rich and fruitful country, but a barren *ſubſtratum* of clay or gravel.

Having therefore removed the force of theſe objections, I ſhall proceed to the examination of others. Now, one of the principal arguments, which I have advanced, for that annual increaſe which is ſuppoſed to have been made to the *land of Egypt*, was taken from *Herodotus*; who tells us, (*Eut.* p. 105.) that *in the time of* Myris, *eight cubits* at leaſt (τὸ ἐλάχιστον) *were required to water the country*; *but, in his time, ſcarce nine hundred years afterwards,* [*ſixteen or*] *fifteen* at leaſt (τὰ ἐλάχιστον) *were neceſſary*. The land therefore, as I conjecture, muſt have received ſeven *Grecian* cubits of increaſe, in that ſpace of time. The whole ſcope of *Herodotus's* reaſoning, both in this and in other places of the *Euterpe*, is to this purpoſe; not only to ſhew the actual and the general increaſe, but even, in ſome meaſure, the very proportion and quantity of this annual increaſe. And of this the matters of fact, related above, are, as he calls them, μέγα τεκμήριον πρὸς τῆς χώρης; *a ſtrong proof or evidence with regard to this country*. For if he had not preſerved, all along, a great regard to this gradual increaſe (which was the very foundation of what he was contending for, that *Egypt was the gift of the Nile)* he never could, from ſuch a long detail and induction of particulars, as are there enumerated, have, at length, concluded, that *Egypt, by being raiſed*, in this manner, *too high to be overflowed, and no rain falling upon it, the inhabitants muſt ſtarve and periſh with hunger.*

Herodotus's arguments for the augmentation of the ſoil, the ſame with mine.

But it is further objected, (*p.* 251.) that *the eight cubits*, above-mentioned, *are to be underſtood of the addition only that is to be made to the* Nile, *at the time of its overflow; but that the ſixteen or fifteen cubits are to be taken for the whole depth of the river, from the top to the bottom.* Whereas *Herodotus's* words will bear no ſuch interpretation. Becauſe, in the firſt part of the above-cited quotation, it is ὅκως ἔλθοι ὁ ποταμὸς ἐπὶ ὀκτὼ πήχεας τὸ ἐλάχιστον, *when the river* (*ariſes* or) *comes to eight cubits at leaſt*; and, in the latter, εἰ μὴ ἐπ' ἑκκαίδεκα ἢ πεντεκαίδεκα πήχεας ἀναδῇ τὰ ἐλάχιστον ὁ ποταμὸς, *unleſs the river aſcends to ſixteen or fifteen cubits* at leaſt; where the ſame meaning is conveyed

The eight *and the* fifteen cubits *of* Herodotus *to be underſtood of the abſolute height of the* Nile.

conveyed in them both; πῶλαμὸς ἔλθοι and πῶλαμὸς ἀναβῇ meaning, one and the other, the whole and the abſolute, not the partial or relative depth or riſing of the *Nile*. Nay, if either of the words could be ſuppoſed to mean the quantity of the periodical riſing, or the addition that is made to the ordinary height of the river at the time of the overflow, it would be ἀναβῇ; which may indeed ſeem to convey ſome idea or hint of this kind. Had ἀναβῇ therefore, inſtead of ἔλθοι, been joined to the *eight cubits*, as it is, unfortunately for this argument, joined to the *fifteen*, it would have been an objection, ſpecious enough indeed, though, by no means reconcilable to the whole ſcope and tenour of the context.

Eight cubits of water in Myris's *time ſufficient to overflow the land of* Egypt.

It is objected again, *(ibid.)* that *Herodotus's* account *of ſixteen and eight cubits cannot be well accounted for on any ſuppoſition, unleſs we ſuppoſe that the canals were cut after* Myris's *time, and ſo made a greater riſe of the* Nile (*i. e.* from eight to ſixteen cubits) *neceſſary*. But ſurely, as ſuch an extraordinary increaſe, from eight to ſixteen cubits of water, could not be brought about at once, ſo neither was it, at this time, neceſſary. For in this infant ſtate, as we may call it, of *Egypt*, when the main channel was of a greater breadth, and the inundations were, at once, both more extenſive and uninterrupted; *the eight cubits at leaſt*, which are here recorded to be the ſtandard, may be well ſuppoſed to have been ſufficient, at that time, for the exigencies of the country. And if *eight cubits at leaſt* were neceſſary, a leſſer height would not have occaſioned a profitable inundation; and a much greater would not have been required. So that the land of *Egypt*, in this low and early condition of it, during the reign of *Myris*, might be ſufficiently refreſhed by an inundation of eight cubits, as one of ſixteen (twelve feet at leaſt above the ſuppoſed level of the ground at that time) muſt have been highly detrimental and deſtructive. If *Egypt* then, according to this account, had always continued the ſame (as the quantity of water, brought down by the *Nile*, has, one year with another, been the very ſame) neither had there been, ſince the time of *Myris*, any ſucceſſive acceſſions of ſoil made to its banks, either in their height or breadth; theſe eight cubits of water would have ſtill continued to be the ſtandard of plenty, and the *Wafaa Allah*[3], to this very day.

The cutting of canals would diminiſh the water of the main ſtream.

Beſides, *the cutting of canals*, which is here alledged, would be attended with a conſiderable loſs of water in the main ſtream. Inſtead therefore of the *Nile's* riſing, upon an alteration of this nature, from eight to ſixteen cubits; the very reverſe would certainly have

[3] See p. 384.

happened.

happened. For the depth of the main ſtream being reduced, by theſe contributions, to ſeven, we will ſuppoſe, or a leſſer number of cubits (*viz.* in proportion to the capacity of theſe canals, and the uſes for which they were intended) the river would actually have become lower than the land may be well ſuppoſed to have been, at that time; and, conſequently, it would not have been able to overflow it.

In the *diagram* (p. 385.) the annual ſucceſſions of *ſtrata*, left by the ſediment of the *Nile*, are all of them ſuppoſed to be upon a level; conſequently, the whole *land of Egypt*, from the river to the utmoſt extent of the inundation, muſt be ſo likewiſe. For as all fluids preſerve a horizontal ſituation [4], the ſediment, which falls and is precipitated from them, muſt, *cæteris paribus*, do the like. Unleſs the inundation therefore ſhould be obſtructed, by ſome means or other, from doing it's office; the like effects muſt be equally produced in all parts. It does not ſeem probable therefore, that *the land of* Egypt [5] *ſhould have a gradual deſcent from the main river to the* *The land of Egypt upon a level.*

[4] *Aqua* dicta, quod ſuperficies ejus æqualis ſit. Hinc & *æquor* appellatum, quia æqualiter ſurſum eſt. *Iſidor.*

[5] "It is *remarkable*, that the ground is loweſt [*ſloping, it ſhould be*; *otherwiſe there is no antitheſis*] near all other rivers which are ſupplied from rivulets; but as no water falls into the *Nile* in its paſſage through this country; but, on the contrary, as it is neceſſary that this river ſhould overflow the country, and the water of it be conveyed by canals to all parts, eſpecially when the waters abate; ſo it * *ſeemed viſible to me*, that the land of *Egypt* is lower at a diſtance from the *Nile*, than it is near it; and *I imagined* that in moſt parts it appeared to have a gradual deſcent from the *Nile* to the hills." *Deſcript. of the Eaſt*, vol. i. p. 199. "The *Nile* need not be ſo high overflowing by the banks of the canal, *on the ſuppoſition* that the ground is lower at a diſtance from the river." *ibid.* p. 250. "Canals being made, it was not a bad *Nile*, though two cubits lower than the bad *Nile* of *Herodotus*, becauſe a leſs height made it to overflow *in ſome meaſure*, as the banks of the canals were lower than the banks of the river," *ibid.* p. 252. "As they have dikes to keep the water out of the canals till the proper time come to let it in, ſo they have contrivances to keep it in ſome canals after the *Nile* is fallen, as well as in certain lakes when the *Nile* grows low; and from them they let it out at pleaſure, on lands that are higher [*which wants to be explained,*] than the channels of the canals; and *Strabo* takes notice of theſe methods [*but the place is not quoted*] to hinder the water from flowing in, or going out when it is in." *ibid.* p. 201. And again: "There is great reaſon to think, that [*contrary to what is generally obſerved*] the *plain* ground of *Egypt* is higheſt towards the river, and that there is a gentle deſcent to the foot of the hills: and if ſo, when the canals were once opened, and the water let into them, it would ſooner overflow the banks of the canals than thoſe of the river, after that the canals were cut; *though not ſooner than before they were cut.* But then the water would overflow leſs, ſooner abate, drain off, and evaporate, by reaſon of the *greater outlet*," &c. *ibid.* p. 250.

foot of the mountains, on each side. This we may rather suspect to be a *deceptio visus*, than a matter of fact.

The introduction of canals could not occasion any inequality in the strata.

For this inequality in the surface could not be occasioned (for the reasons just now alledged) by the more general and total inundations; such as happened in the earlier ages, when the *Nile* was neither bounded nor confined by mounds or *canals*; and when the whole *land of Egypt* was πεδιὰς πᾶσα, *one continued plain*, as *Herodotus* expresses it. Neither could this inequality be introduced by the partial or distributive inundations, as we may call them; such as were made at and after the time of *Sesostris*[6], by means of these canals, together with their respective banks and adjacent inclosures. The contrary would always follow, unless the *Nile* was entirely excluded; which the *Egyptians*, from the great fertility and profit that attended the inundation, would never be induced to permit. No such declivity therefore, in the *strata*, could follow from the introduction and structure of the canals themselves; which (besides their civil and political use[7], in cantoning out this country into particular districts; in conveying the water to distant parts; and in preventing sudden invasions) were intended, not only to carry off the superfluous water, and thereby prevent the inundations from being hurtful; but to convey and distribute them likewise, with greater œconomy and conveniency, to the very skirts of the mountains.

The same height of water in the main stream and in the canals.

Wheresoever likewise we meet with any banks or mounds (whether they are intended, according to the exigence of the country, to shut out, to receive, or to retain the water; as it was sometimes practised in the outlets to the lake of *Myris*[8]) there they are much

[6] *Egypt* seems to have been watered by canals, and to have had large lakes as early as the time of *Moses*, who is ordered *to stretch out his hands upon their streams, upon their rivers, and upon their ponds*, Exod. vii. 19. and viii. 5.

[7] Ἀπὸ δὲ τούτου τοῦ χρόνου Αἴγυπτος ἐοῦσα πεδιὰς πᾶσα ἄνιππος καὶ ἀναμάξευτος γέγονε. Αἴτιαι δὲ τούτων αἱ διώρυχες γεγόνασι, ἐοῦσαι πολλαὶ καὶ παντοίοις τρύποις ἔχουσαι· κατέταμνε δὲ τοῦδε εἵνεκα τὴν χώρην ὁ βασιλεὺς, ὅσοι τῶν Αἰγυπτίων μὴ ἐπὶ τῷ ποταμῷ ἔκτηντο πόλεες, ἀλλ' ἀναμέσους, οὗτοι ὅκως τε ἀπίοι ὁ ποταμὸς σπανίζοντες ὑδάτων, πλατυτέροισι ἐχρέωντο τοῖσι πόμασι ἐκ φρεάτων χρειώμενοι. *Herod. Eut.* p. 144. Κατὰ πᾶσαν δὲ τὴν χώραν τὴν ἀπὸ Μέμφιος ἐπὶ θάλασσαν ὄρυξε πυκνὰς ἐκ τοῦ ποταμοῦ διώρυγας, ἵνα τὰς μὲν συγκομιδὰς τῶν καρπῶν ποιῶνται συντόμως καὶ ῥᾳδίως, τοῦ δὲ πρὸς ἀλλήλους τῶν λαῶν ἐπιμιξίαις καὶ πᾶσι τοῖς τόποις ὑπάρχῃ ῥαστώνη καὶ πάντων πρὸς ἀπόλαυσιν πολλὴ δαψίλεια. τὸ δὲ μέγιστον, πρὸς τὰς τῶν πολεμίων ἐφόδους ὀχυρὰν καὶ δυσέμβολον ἐποίησε τὴν χώραν. *Diod. Sic.* lib. i. p. 36.

[8] Ἐπίκειται δὲ τοῖς στόμασιν ἀμφοτέροις τῆς διώρυγος κλεῖθρα, οἷς ταμιεύουσιν οἱ ἀρχιτέκτονες τό, τε εἰσρέον ὕδωρ, καὶ τὸ ἐκρέον. *Strab.* l. xvii. p. 557.

of

of the ſame height and quality, both along the edges of the main ſtream, and along the edges of the correſpondent branches and canals. What determinate height of water therefore would be requiſite to overflow and refreſh the grounds, adjacent to the one, would be neither more nor leſs ſufficient for the other. As the water therefore in the canals, from the very nature, intention, and ſtructure of them, muſt always keep pace, and be of the ſame horizontal height with the main ſtream; the very ſame fertilizing ſediment, which, at any inundation, was brought down by *this*, would, *cæteris paribus*, be communicated likewiſe to the correſpondent branches or canals. Similar effects would conſequently follow; and one part of *Egypt* (I mean under the ſame parallel of latitude) would be no more accumulated with ſoil than another. As this ſuppoſed matter of fact then may be diſputed, ſo will the concluſion likewiſe that is drawn from it (p. 250.) viz. *that the* Nile *need not be ſo high, overflowing by the banks of the canals; on the ſuppoſition* (which ſuppoſition requires to be further ſupported) *that the ground is lower at a diſtance from the river.*

The height of the land commenſurate to the neceſſary height of the overflow.

If then the ſame height of water is required, in the collateral branches or canals, as in the main ſtream, to overflow the adjacent lands; what determinate height of it ſoever is or has been neceſſary for that purpoſe, in any given age, or period of time, will, in a great meaſure, determine the height of the *land of Egypt* at that time. But this is not to be underſtood of extraordinary inundations, ſuch as waſh and carry away the mounds and incloſures, and ſometimes large portions of the land itſelf; but of the ordinary and uſual overflows; ſuch as are managed and conducted according to the proper wants and exigencies of the country. *Theſe*, I ſay, *will very nearly aſcertain the height of the land above the bed of the river.* For, in the two caſes already quoted from *Herodotus*, they both of them ſeem to be well circumſtantiated and (I had almoſt ſaid) concluſive for this *hypotheſis*. For the appellation of τὰλάχιϛον, *at leaſt*, which is there aſcribed to them both (to the riſing of the *Nile* to eight cubits in *Myris's* time, and to that of fifteen, nine hundred years afterwards) will point out to us the barely ſufficient quantity of water that was neceſſary at thoſe reſpective times; and conſequently, that a leſs quantity, as being lower (we may ſuppoſe) than the lands to be refreſhed, would not have been able to effect it.

The land has riſen 150 inches at leaſt, ſince the time of Herodotus.

If we could then know what height of water *at leaſt* was required at preſent for the exigencies of the country, particularly near *Geeza* or *Memphis* (the ſuppoſed ſcene of theſe alterations) we ſhould ſo far determine the quantity of ſoil, that has been there accumulated,

ſince the time of *Herodotus*. In A. D. 1721, when I was in *Egypt*, the *Nile* roſe conſiderably (and yet the banks were not full) after the *Wafaa Allah* or ſtandard of ſixteen (*i. e.* eighteen [9] cubits) was proclaimed, without laying the neighbouring plains under water. We will ſuppoſe, then, that the addition of two cubits more, making in all twenty, would have been ſufficient for this purpoſe. Now as the cubits, by which the riſing of the *Nile* is computed at preſent, are not only more in number, but of a greater length than thoſe that are recorded by *Herodotus*; the difference in the meaſure, will give us the difference in the height of the ſoil: or, in other words; if, in *Herodotus's* time, fifteen *Grecian* cubits, *at leaſt*, of water, were required to prepare the land for tillage; and twenty *at leaſt*, of much longer cubits, are required at preſent; the land muſt have received an acceſſion of ſoil in proportion. If then the length of the preſent cubit ſhould be (as I have ſuppoſed it, p. 383.) twenty five inches; *Egypt*, by requiring two hundred and ſixty inches more water to overflow it, than in the time of *Herodotus*, muſt have therefore gained the like additional height of two hundred and ſixty inches in its ſoil.

The requiſite riſing of the Nile *does not depend upon its outlets.*

But it is ſtill argued (p. 252.) that *no computation can be made, how much the ſoil has riſen, from conſidering how much the* Nile *ought to riſe for the benefit of the country.* And this is ſupported by further alledging, that *all this depends on the openings and outlets there are for the water; on their breadth and their depths; on their being kept clean or neglected.* Now it may be obſerved of theſe canals, and their outlets, that their chief uſe, is either to attend the motion and to keep up a conſtant height and pace with the main ſtream; or elſe, by

9 "As they publiſh (ſays the author of the *Deſcript. of the Eaſt*, vol. i. p. 258.) "ſuch an extraordinary riſe as fifty inches, about the time that they declare it is riſen "ſixteen pikes, it is probable, that they keep private the real riſe before that time; "which may be a piece of policy of the people not to pay their rents if it *does not* "*riſe to eighteen pikes*; for unleſs it riſes *ſo high*, they have but an indifferent year: "and poſſibly when they declare that the *Nile* is ſixteen pikes high, it may be riſen "to *eighteen*." And again, p. 200. "Eighteen pikes is an indifferent *Nile*, twenty "is middling, twenty two is a good *Nile*, beyond which it ſeldom riſes: and it is "ſaid, if it riſes above twenty four pikes, it is looked on as an inundation, and is of "bad conſequence, as the water does not retire in time to ſow the corn. But I can- "not find any certain account when this has happened." And again: "The man- "ner of computation has been altered; the higheſt having been eighteen pikes, "whereas now it is twenty four. — The pillar alſo ſeems to have been changed." *p.* 254. Vid. ſupra, p. 384. ☞ Eighteen cubits are recorded for the ſtandard by *P. Alpinus*, l. iv. c. 2. *Hiſt. nat. Ægypt.* *Sandys* (p. 75.) acquaints us, that when he was at *Kairo*, near 140 years ago, *the* Nile *roſe twenty three cubits; and ſometimes it would riſe to twenty four.* But unfortunately, that curious traveller has not given us the length of the cubit, by which they meaſured at that time.

damming up their mouths, they are to ſerve for ſo many baſons or *reſervoirs*, when the inundation is over. When therefore the water in theſe canals begins to ſtagnate; either by being dammed up, or by being forſaken by the main ſtream (for the beds of the canals, by the eaſier ſubſiding there of the mud, become frequently higher, if they are not kept clean, then the bed of the main ſtream) in theſe caſes, and upon ſuch revolutions and accidents the *Nile* is no further concerned; its operation and influence (at leaſt with regard to theſe canals) ceaſe; and art and labour begin then to take place. If then theſe canals ſhould or had at any time been too many in number, or of too great capacity, ſo as to have drained off too much water from the main ſtream; the height of water, that otherwiſe might have been ſufficient to refreſh the country, would hereby become too ſcanty and deficient; and, without the aſſiſtance of art (*viz.* by drawing up the water with inſtruments) a famine muſt have neceſſarily followed. Or again, if theſe canals were all, or moſt of them choaked up, ſo that the whole body of water reverted to the main ſtream; the conſequence would be ſtill worſe; becauſe the riſing would now be more than ſufficient; and occaſioning thereby too copious an overflow, would leave behind it too great a ſtagnation of water. Theſe canals, therefore, and their outlets, appear to be *incidental occurrences* only, adapted and accommodated, from time to time, to the exigencies and demands of the country; without bearing any relation at all either to the real and *phyſical* riſing of the *Nile*; to the quality of theſe inundations; or to the alterations in the ſoil that have been conſequent thereupon.

The height of the ſoil to be computed from the height of the Nile.

Why *Egypt*, therefore, in the time of *Myris*, ſhould require *at leaſt* eight cubits of water to prepare it for tillage; and nine hundred years afterwards, fifteen; and (at preſent) twenty, or twenty two; and yet have always continued the ſame, *by loſing*, as it has been alledged and objected, *in the produce of the crop what is annually gained by the ſediment*; or, *by the bed of the channel riſing in proportion with the banks*; or, *by the ſuppoſed relation and analogy between the river, the canals, and their outlets*; (none of which propoſitions are to be admitted without further proof) cannot, I preſume, be accounted for, upon any other principle, either of reaſon or experiment, than that gradual riſing of the ſoil, which I have all along been contending for; and which, by theſe additional arguments, I hope is now ſufficiently proved.

SECT.

SECT. V.

Of the Egyptian *plants and animals.*

Few plants *or* animals *in* Egypt.

AS the whole *land of Egypt*, properly ſo called, is annually overflowed by the *Nile*, it does not ſeem capable either of producing or nouriſhing a great variety either of plants or animals. However, *Proſper Alpinus*, *Bellonius*, and other authors of great reputation, have been very copious upon both theſe ſubjects. And as I am unwilling to repeat after them, I ſhall make this remark only upon their ſeveral accounts, *viz.* that *if the aquatic plants and animals (which are not many) are excepted, there are few other branches of the natural hiſtory, that are coæval with Egypt.* The *muſa*, the *palm*, the *caſſia fiſtulæ*, the *ſycamore*; nay even the *leek* and the *onion*, were originally as great ſtrangers as the *camel*, the *bekker el waſh*, the *gazel*, and the *jeraffa*. For as it has been proved, in the two foregoing chapters, that *Egypt* was not made at once, but, in proceſs of time, one part after another; it cannot claim the like antiquity with other countries, in its animal or vegetable productions; all or moſt of which muſt have been gradually tranſplanted into it from other the neighbouring regions, as it became capable to nouriſh and receive them.

The papyrus *almoſt deſtroyed.*

Yet even ſome of thoſe plants and animals, that may be reckoned among the *indigenæ*, or at leaſt of great antiquity in this country, are now either very ſcarce, or intirely wanting. For the inhabitants have left us very little or nothing at all remaining of the *papyrus*, by continually digging up the roots of it for fuel: the *perſea* too, that had formerly ſo great a ſhare in their *ſymbolical writing*, is either loſt, or the deſcriptions of it do not accord with the *Egyptian* plants, that are known at this time. It cannot certainly be the *perſica*, or *peach* tree, as it is commonly rendered, becauſe the leaves of it were perennial, and fell not, as theſe do every autumn.

The perſea *not the peach tree.*

The plants and grain differently nouriſhed.

As it ſeldom or never rains in the inland parts of *Egypt*, the different *ſpecies* of grain, pulſe, and other vegetable productions, are intirely indebted to the water of the *Nile* for their growth and increaſe. Yet they are not all of them raiſed and nouriſhed in the ſame way. For *barley* and *wheat* (which are uſually ripe, the firſt about the beginning, the latter at the end of *April*) require no further culture and refreſhment than, after the inundation is over, whether in *October*, *November*, or (ſometimes ſo late as) *December*, to be thrown upon the mud; or, if the mud is too hard and ſtiff, then it is to be beat

beat or plowed gently into it. At the ſame time alſo, as I was informed (for a *Chriſtian* is not permitted to inſpect narrowly into their plantations of *rice*) they ſow *flax* and כסמת or *rice*, *Exod.* ix. 32. as I ſuppoſe it may be rather rendered than *rye*, or *fitches*, or *ſpelt*, as it is otherwiſe tranſlated *Iſ.* xxviii. 25. *Ezek.* iv. 9. the firſt of which, viz. *rye*, is little if at all known in theſe countries, and is beſides of the quickeſt growth. Now as *wheat* and *rice* are of a ſlower growth than *flax* or *barley*, it uſually falls out in the beginning of *March* that the *barley is in the ear*, and the *flax is bolled*, when the *wheat* and the *rice* are *not* as yet *grown up* (אפילת) or begin only to ſpindle. For the word, which we render *were not grown up*, is in the LXX. ὄψιμα, i. e. *ſerotina*, *late* or *backward*; and, in the margin, *they were dark*; or, as we may perhaps explain it, *they were of a dark green colour*, as young corn generally is, in contradiſtinction to its being of a light yellow, or golden colour, as when it is ripe. For the context ſuppoſes the *wheat* and the *rice* not only to have been ſown, but to have been likewiſe in ſome forwardneſs, as they well might be in the month of *Abib*, anſwering to our *March*; otherwiſe it would have been to no purpoſe to have mentioned *the hail falling upon them*, which deſtroyed indeed the *barley* and the *flax*, but the *wheat and the rice were not ſmitten*, becauſe their leaves at that time were of ſo ſoft and yielding a nature, that the *hail*, by meeting with no reſiſtance, as from the *flax* and *barley*, did them no harm.

The plantations of *rice* are kept almoſt conſtantly under water: and therefore the larger crops of it are produced near *Dami-ata* and *Rozetto*, where the ground, being low, is more eaſily overflowed, than thoſe portions of it which lie higher up the river. *Rice*, or *oryza*, as we learn from *Pliny* (l. xviii. cap. 17.) was the *olyra* of the ancient *Egyptians*.

Beſides the uſe that is commonly made of *barley* to feed their cattle, the *Egyptians*, after it is dried and parched, make a fermented intoxicating liquor of it, called *bouzah*, the ſame, probably, with the οἶνος κρίθινος of the ancients. This is very copiouſly drank by the lower rank of people, and might be one ſpecies of the *ſiccar* [1], or *ſtrong drink*, which is mentioned in Scripture: for ſpirits drawn by the *alembic* were not, we may preſume, of this antiquity. Bouzah, or ſiccar.

[1] St. *Jerom* (*Epiſt. ad Nepotianum*) acquaints us, that the *ſicera* was made of ſeveral things; as of barley, ripe grapes, figs, ſiliquæ, cornel-berries, &c. *Omne quod inebriare poteſt, ſicera dicitur.* Id. *De nom. Hebr.* Vid. *Cant.* viii. 2. of pomegranate wine.

Such

Their engines for raiſing water.

Such vegetable productions, as require more moiſture than what is occaſioned by the inundation, are refreſhed by water drawn out of the river, by inſtruments, and lodged afterwards in capacious ciſterns. *Archimedes's* ſkrew[a] ſeems to have been the firſt that was made uſe of upon theſe occaſions; though, at preſent, the inhabitants ſerve themſelves either with leathern buckets, or elſe with a *ſakiah* (as they call the *Perſian* wheel) which is the general, as well as the moſt uſeful machine. However, engines and contrivances of both theſe kinds, are placed all along the banks of the *Nile*, from the ſea quite up to the *cataracts*; and as theſe banks, *i. e.* the land itſelf, become higher in proportion as we advance up the river, the difficulty of raiſing water becomes likewiſe the greater.

The method of watering their plantations.

When therefore their various ſorts of *pulſe*, *ſafranon* (or *carthamus*) *muſa*, *melons*, *ſugar-canes*, *&c.* (all which are commonly planted in rills) require to be refreſhed, they ſtrike out the plugs that are fixed in the bottoms of the ciſterns; and then, the water guſhing out, is conducted, from one rill to another, by the gardener; who is always ready, as occaſion requires, to ſtop and divert the torrent, by turning the earth againſt it with his foot, and opening, at the ſame time with his mattock, a new trench to receive it. This method of conveying moiſture and nouriſhment to a land rarely or ever refreſhed with rain, is often alluded to in the H. Scriptures; where alſo it is made the diſtinguiſhing quality betwixt *Egypt* and the *land of Canaan*. For *the land* (ſays *Moſes* to the children of *Iſrael*, *Deut.* xi. 10, 11.) *whither thou goeſt in to poſſeſs it, is not as the land of Egypt, from whence ye came out, where thou ſowedſt thy ſeed, and wateredſt it with thy foot, as a garden of herbs: but the land whither ye go to poſſeſs it, is a land of hills and valleys, and drinketh water of the rain of heaven.*

Of the Egyptian *animals.*

The hippopotamus, crocodile, *and* ibis *very rare.*

IF from this ſhort account of their *vegetable productions*, we inquire after their *animals*; the *hippopotamus* is what the preſent race of *Egyptians* are not at all acquainted with. Nay, the very *crocodile*, or *timſah*, as they call it, ſo rarely appears below the *cataracts*, that the ſight of it is as great a curioſity to them, as to the *Europeans*. In like manner the *ibis*, that was once known to every family, is now become exceedingly rare; neither could I learn that it was any where to be met with. By the *ſkeleton* of one of theſe birds embalmed, which I brought from *Egypt*, the upper part of the bill (for the lower is mouldered away) is ſhaped exactly like that of

[a] *Diod. Sic.* lib. i. p. 21.

the

the *numenius*, or *curlew*. The thigh bone is five, and the *tibia* ſix, inches long; each of them ſmaller and more delicate than in the *heron*; and conſequently the *crus rigidum*, which is attributed to it by *Tully* [3], ſeems to be without foundation. The feathers are ſo ſcorched, by the compoſition they were embalmed with, that they have loſt their original colour, which, according to *Plutarch*, ſhould be both black and white, as in the πέλαργος. That part of the rump, or region of the kidneys, which remains, is of the ſame bigneſs as in an ordinary pullet: from which circumſtance, the *ibis* appears to have been of a ſmaller ſize than our *heron* or *bittern*. The figure, which I have of this πελαργώδες ὄρνεον, in a *ſardonyx* (the ſame likewiſe that is upon an *Egyptian* medal of *Hadrian*, in the *ſmaller braſs*) ſhews it to come nearer to the *ſtork*, in ſhape and in geſture too, than to either of the birds laſt mentioned.

The ſtorks *are in great numbers in* Egypt.

But the loſs of the *ibis* is abundantly ſupplied by the *ſtork*. For, beſides a great number of them that might undoubtedly eſcape my notice, I ſaw, in the middle of *April*, 1722 (our ſhip lying then at anchor under *Mount Carmel*) three flights of them, ſome of which were more open and ſcattered, with larger intervals between them; others were cloſer and more compact, as in the flights of crows and other birds, each of which took up more than three hours in paſſing by us; extending itſelf, at the ſame time, more than half a mile in breadth. They were then leaving *Egypt* (where the canals and the ponds, that are annually left by the *Nile*, were become dry) and directed themſelves towards the N. E. No leſs extraordinary and ſurpriſing are thoſe flights of *pigeons*, which have been obſerved in *New England*, and in other parts of *America* [4]. This I mention as a parallel caſe; becauſe ſome do not eaſily give credit to my account.

They aſſemble together before they paſs from one country to another.

It is obſerved of the *ſtorks*, *when they know their appointed time*, *Jer.* viii. 7. that, for about the ſpace of a fortnight, before they paſs from one country to another, they conſtantly reſort together, from all the circumjacent parts, in a certain plain; and there forming themſelves, once every day, into a *dou-wanne*, or *council* (according to the phraſe of theſe *Eaſtern* nations) are ſaid to determine the ex-

[3] *Ibes* maximam vim ſerpentium conficiunt, cum ſint aves excelſæ, cruribus rigidis, corneo proceroque roſtro. *De nat. Deor.* l. i. p. 210. Ed. Lamb.

[4] "In *Virginia* I have ſeen *the pigeons of paſſage* fly in ſuch continued trains, three "days ſucceſſively, that there was not the leaſt interval in loſing ſight of them, but "that ſomewhere or other in the air they were to be ſeen continuing their flight "ſouth. Where they rooſt (which they do on one anothers backs) they often break "down the limbs of oaks by their weight, and leave their dung ſome inches thick "under the trees they rooſt upon." *Cateſby's Carolina*, p. 23.

act time of their departure, and the place of their future abodes. Thoſe that frequent the marſhes of *Barbary*, appear about three weeks ſooner than the flights above-mentioned, though they likewiſe are ſuppoſed to come from *Egypt*; whither alſo they return a little after the autumnal *æquinox*; the *Nile* being then retired within its banks, and the country in a proper diſpoſition to ſupply them with nouriſhment.

The ſtork accounted ſacred by the Mahometans.

The *Mahometans* have the *bel-arje* (for ſo they commonly call the *ſtork* [6]) in the higheſt eſteem and veneration. It is as ſacred among them, as the *ibis* was amongſt the *Egyptians*; and no leſs profane would that perſon be accounted, who ſhould attempt to kill, nay, even to hurt or moleſt it. The great regard that is paid to theſe birds, might have been firſt obtained (not ſo much from the ſervice they are of to a moiſt, fenny country [7], in clearing it from a variety of uſeleſs reptiles and inſects) as from the ſolemn geſticulations which they make, whenever they reſt upon the ground, or return to their neſts. For, firſt of all, they throw their heads backwards in a poſture of adoration; then they ſtrike together, as with a pair of *caſtanets* [8], the upper and lower parts of their bill; afterwards they proſtrate their necks, in a ſuppliant manner, down to the ground; repeating the ſame geſticulations three or four times together. The *Eaſtern* nations have the like reverence for the *pigeon*, and all the *dove* kind; whoſe *cooing*, or, in the prophet's expreſſion (*Nah.* ii. 7.)

They make uſe of many ſolemn geſticulations.

[6] [لقلق or لقلغ] *Leklek* or *Legleg* is the name, that is commonly uſed by the *Arabian* authors, though *bel-arje* prevails all over *Barbary*. *Bochart* (*Hieroz.* l. ii. cap. 29.) ſuppoſeth it to be the ſame with the *haſida* of the Scriptures; a bird, which was ſo called from the piety of it. Nam חסידה piam & benignam ſonat. *Id: ibid.* Eximia *ciconiis* ineſt pietas. Etenim quantum temporis impenderint fœtibus educandis, tantum & ipſæ a pullis ſuis invicem aluntur. *Solin. Polyhiſt.* cap. 53. *Ælian. Hiſt. animal.* l. iii. cap. 23. *Horap.* l. ii. cap. 55.

[7] Thus it is ſaid of the people of *Theſſaly*, Θεσσαλοὶ ἢ πελαργὸς (ἐτίμησαν) ὅτι πολλὰς ὄφεις τῆς γῆς ἀναδιδόσης ὑπεφανέντες ἐξώλησαν ἅπαντας. *Plut. de Iſid.* p. 380. Honos iis ſerpentium exitio tantus, ut in *Theſſalia* capitale fuerit occidiſſe. *Plin.* lib. x. cap. 23.

[8] From this noiſe it was called *crotaliſtria* by the ancients, the *crotalum* being likewiſe ſuppoſed to have been taken from it.

—— crepitante *ciconia* roſtro. *Ovid. Met.* l. vi.

Sonus, quo *crepitant*, oris potius, quam vocis eſt. *Solin. Polyhiſt.* ut ſupra. Καὶ σὺ πελαργὲς, ἐπειδὰν παρῇς ἡμᾶς ΚΡΟΤΙΣΩΝ. *Philoſtr. Epiſt. ad Epict.* Ciconiæ, quaſi *Cicaniæ*, a ſono, quo crepitant, dictæ ſunt; quem *roſtro quatiente* faciunt. *Iſid. Orig.* l. xii. p. 1134.

their

their tabring upon their breaſts, they interpret as ſo many acts of worſhip and devotion. For upon theſe occaſions *their ſouls* are ſuppoſed *to go out in ſearch of God*; or, in the *Pſalmiſt's* phraſe, *to call upon him*. The *ſtorks* breed plentifully in *Barbary* every ſummer. They make their neſts with dry twigs of trees, which they place upon the higheſt parts of old ruins or houſes, in the canals of ancient aquæducts, and frequently (ſo very familiar they are, by being never moleſted) upon the very tops of their moſques and dwelling-houſes. *The fir* and other *trees* likewiſe (when theſe are wanting) *are a dwelling for the ſtork*, Pſal. civ. 17.

The ſands and mountainous diſtricts, on both ſides of the *Nile*, afford us as great a plenty, both of the *lizard* and the *ſerpentine* kinds, as are found in the deſert of *Sin*. The *ceraſtes*, probably the true *Egyptian aſpic*, is the moſt common *ſpecies* of the latter. *Signore Gabrieli*, whom I have mentioned above, ſhewed me a couple of theſe vipers, which he had kept five years in a large cryſtal veſſel, without any viſible food. They were uſually coiled up in ſome fine ſand, which was placed in the bottom of the veſſel; and when I ſaw them, they had juſt caſt their ſkins, and were as briſk and lively as if newly taken. The horns of this viper are white and ſhining, in ſhape like to half a grain of barley, though ſcarce of that bigneſs.

The ceraſtes *lives long without food.*

Of the *lizard* kind, the *warral* is of ſo docible a nature, and appears withal to be ſo affected with muſic, that I have ſeen ſeveral of them keep exact time and motion with the *derviſhes*, in their circulatory dances; running over their heads and arms; turning, when they turned; and ſtopping, when they ſtopped. I have likewiſe read, that the *dab*, another lizard which I have deſcribed [9], is a lover of muſic, particularly of the bagpipe [1]. This, I preſume (as there is no ſmall affinity betwixt the *lizard* and the *ſerpent*-kind) may bear ſome relation to the quality which the latter is ſuppoſed to have, of being charmed and affected with muſic. The *Pſalmiſt* alludes to it (*Pſal.* lviii. 4, 5.) when he mentions *the deaf adder, which ſtoppeth her ear, and refuſeth to hear the voice of the charmer, charm he never ſo wiſely*. The like is taken notice of *Eccleſ.* x. 11, *Surely the*

The warral *affected with muſic.*

The charming of ſerpents, &c. *a common and received opinion among the* Hagiographi, *and other writers.*

9 Vid. p. 178.

[1] Mr. *Greaves's* friend at *Grand Cairo* had many four-legged ſerpents (lizards) blackiſh, with long knotty tails, ending in a point obtuſe. Theſe are ſomething like the crocodile; but differ in the head, and tail, and ſkin. Theſe ſerpents (lizards) when the weather is hot, would, upon muſic, come out, and run upon him; but in the winter they lie as dead. Yet ſome of them will ſcramble a little and move. Of this muſic they love the bag-pipe beſt. *Greaves's Obſervations*, vol. ii. p. 523.

ſerpent will bite without inchantment; and a babler is no better. Jer. viii. 17, *I will ſend ſerpents, cockatrices among you, which will not be charmed; and they ſhall bite you.* The expreſſion of St. *Paul*, τὰ βέλη τοῦ πονηροῦ σβέσαι, *Eph.* vi. 16. is ſuppoſed likewiſe to be in alluſion to the ὄφεων ἰὸν σβέσαι of *Orpheus*, in the preface περὶ λίθων. In all which texts of Scripture, the charming of ſerpents ſeems to be alluded to, either as a matter of fact, or as an opinion at leaſt that was commonly received. The ſame notion of preventing the venom of ſerpents, and other noxious animals, by charming them with certain ſounds; or by muttering ſome particular words; or by writing, upon ſcrolls of paper, certain ſentences or combinations of numbers; has formerly prevailed all over *Greece*[2] and *Rome*, as it does, to this day, all over thoſe parts of *Barbary*, where I have travelled[3].

The ophiophagi, *or eaters of ſerpents.*

I was informed, that more than forty thouſand perſons in *Kairo*, and in the neighbourhood, live upon no other food than *lizards* and *ſerpents*. This ſingularity entitles them, among other religious privileges, to the honour of attending, more immediately, upon the embroidered hanging of black ſilk, which are made every year for the *kaaba* of *Mecca*, and conducted with great pomp and ceremony, from the caſtle, through the ſtreets of *Kairo*, the day when they ſet out upon their *pilgrimage* to that place. I ſaw, upon this occaſion, a number of this order, who ſang and danced before it; throwing their bodies, at certain intervals, into a variety of enthuſiaſtic geſtures. Such like acts of devotion, how ludicrous ſoever they may appear to us, have been always looked upon with reverence by the *Eaſtern* nations. Thus we find, *Pſal.* cxlix. 3. that *the Lord's name was to be praiſed in the dance.* And again, *Pſal.* CL. 4. that *he was to be praiſed with the timbrel and dance.* Agreeably to which injunctions, *all the women went out after Miriam with timbrels and dances,* Exod. xv. 20. and *David, in bringing the ark from the houſe of Obed-Edom, danced before the Lord,* 2 Sam. vi. 14.

Their ceremonies in conducting the hangings of the kaaba.

[2] Αἰγυπτίους ἐγὼ πυνθάνομαι μαγγανείᾳ τινὶ ἐπιχωρίῳ καὶ τοὺς ὄρνιθας ἐκ τοῦ οὐρανοῦ καταφέρειν. τῶν δὲ Φυλεῶν τοὺς ὄφεις ἐπαοιδαῖς τισι καταγοητεύσαντες, εἶτα μέντοι προάγουσι ῥᾷστα. *Ælian. Hiſt. animal.* l. vi. c. 33. *Bochart.* in *Hieroz.* par. poſt. l. iii. c. 6. has collected a great many authorities, both from *Greek* and *Latin* authors, to this purpoſe.

[3] Vid. *Pref.* and p. 200, 201. and *Ludolf. Hiſt. Æthiop.* l. i. c. 16. & *Comment.* p. 216.

SECT.

SECT. VI.

Some additional obſervations with regard to the animals of Egypt, *particularly as they relate to the Holy Scriptures.*

IT is very probable, that the ſacred hiſtorian, in prohibiting or allowing ſeveral *ſpecies* of animals for food, made frequent alluſions to thoſe of *Egypt*; with which the *Iſraelites* (as juſt departed out of that country) may be ſuppoſed to have been well acquainted. The *Egyptian zoology* therefore, no leſs than that of the neighbouring parts of *Africa*, *Paleſtine*, and *Arabia*, deſerves to be further inquired into and conſidered, as, from thence, no ſmall light may be given to the H. Scriptures in that curious branch of literature.

The Scripture animals variouſly interpreted.

For how deficient we are in the knowledge of the Scripture-animals, even after the many laborious reſearches of the *Jewiſh rabbies*, the *ſacred critics*, and other perſons of profound learning and experience, will ſufficiently appear from the following doubts and obſervations. If then we begin with ſuch *quadrupeds* of the wilder ſort, as were allowed the *Iſraelites* for food (for the tame kinds are ſo well known, that they will admit of no diſpute) we ſhall find *ſeven* of them enumerated *Deut.* xiv. 5. But with what uncertainty and diſagreement the greateſt part of them, at leaſt, have been underſtood and interpreted, will ſufficiently appear from the general view, that is here given, of their reſpective tranſlations.

	I.	II.	III.	IV.	V.	VI.	VII.
Heb.	איל *Aïle.*	צבי *Tzebi.*	יחמור *Yachmur.*	אקו *Akko.*	דישון *Deſhon.*	תאו *Thau.*	זמר *Zomer.*
LXX.	Ἔλαφος.	Δορκάς.	Βύβαλις.	Τραγέλαφος.	Πύγαργος.	Ὄρυξ.	Καμηλοπάρδαλις.
Vulg.	Cervus.	Caprea.	Bubalus.	Tragelaphus.	Pygargus.	Oryx.	Camelopardalis.
Syr.	Id.	Id.	Id.	Bos *ſylveſtris.*	Unicornis.	Hircus *ſylveſtris.*	Capra *monticola.*
Pagn.	Id.	Id.	Id.	Sylveſtris hircus.	Id.	Oryx.	Capra *rupicola.*
Jun. Tre.	Id.	Id.	Dama.	Rupicapra.	Strepſiceros.	Bubalus.	Camelopardalis.
Boch.	Id.	Id.	Cervi *aut* Capreæ *genus.*	*Sylveſtris* hircus.	Pygargi *aut* Tragelaphi *gen.*	Oryx *ſ.* Bos *ſylveſtris.*	Capreæ *genus.*
Eng.	Hart.	Roebuck.	Fallowdeer.	Wild goat.	Pygarg.	Wildbeeve.	Chamois.

I. Let

The aïle *is the* hart *or* deer.

I. Let us examine them therefore, according to the order wherein they are placed, and begin with the *aïle*; which is rendered the *hart* or *deer*, in all tranſlations. Now, as it may be preſumed that the *aïle* is to be here underſtood γενικῶς, or as a *kind* including its *ſpecies*, it will comprehend all the varieties of the *deer-kind* (at leaſt as many of them as we are to inquire after at preſent) whether they are diſtinguiſhed by *round horns*, ſuch as are peculiar to the *ſtag*; or by *flat horns*, which is the chief characteriſtic of the *fallow deer*; or by *the ſmallneſs of the branches*, which is the diſtinction of the *roe*.

The tzebi *is not the* roe, *but the* antilope.

II. The *tzebi* then, provided it be properly, as it is univerſally rendred the *roe*, could, at moſt, be a variety only or *ſpecies* of the *deer-kind*, and not a diſtinct *genus* itſelf. It may be queſtioned likewiſe, whether the *roe*[4], or (according to its *Latin* name) *caprea* or *capreolus*, was a native of theſe ſouthern countries. For δορκὰς, the *Greek* name, may, with more probability, be rendred the *gazel* or *antilope*; which is very common all over *Greece*, *Syria*, the *H. Land*, *Egypt*, and *Barbary*. It is not likely therefore, that ſo noted an animal as this, ſhould want a proper and peculiar appellation to identify and diſtinguiſh it from all other *horned quadrupeds*. If δορκὰς then is not this diſtinguiſhing appellation, what other can be appropriated to it? Inaſmuch as it will be ſhewn, that the *pygargus*, the *ſtrepſiceros*, the *addace*, and *oryx*, though noted names, do more properly belong to other *ſpecies*.

The δορκὰς *is the* antilope.

It may be further urged, that the characteriſtics which are attributed to the δορκὰς, both in ſacred and profane hiſtory, will very well agree with the *antilope*. Thus *Ariſtotle*[5] deſcribes the δορκὰς to be the ſmalleſt of the *horned animals*, as the *antilope* certainly is; being even ſmaller than the *roe*. The δορκὰς is deſcribed to have fine eyes[6]; and, in theſe countries, thoſe of the *antilope* are ſo to a proverb. *The damſel, whoſe name was Tabitha, which is, by interpretation*, Dorcas, (Acts ix. 36.) might be ſo called from this particular feature and circumſtance. *David's Gadites* (1 Chron. xii. 8) together with *Aſahel* (2 Sam. ii. 18.) are ſaid *to be as ſwift of foot as the tzebi*; and few creatures exceed the *antilope* in ſwiftneſs. Moreover the *dorcas* is generally named, together with the *bubalus*, in books of *natural hiſtory*[7], as the moſt common and noted animals of the more

[4] In *Africa* autem nec eſſe apros, nec cervos, nec *capreas*, nec urſos. *Plin.* l. viii. c. 58.

[5] Ἐλάχιστον γάρ ἐστι τῶν γνωριζομένων κερατοφόρων δορκάς.

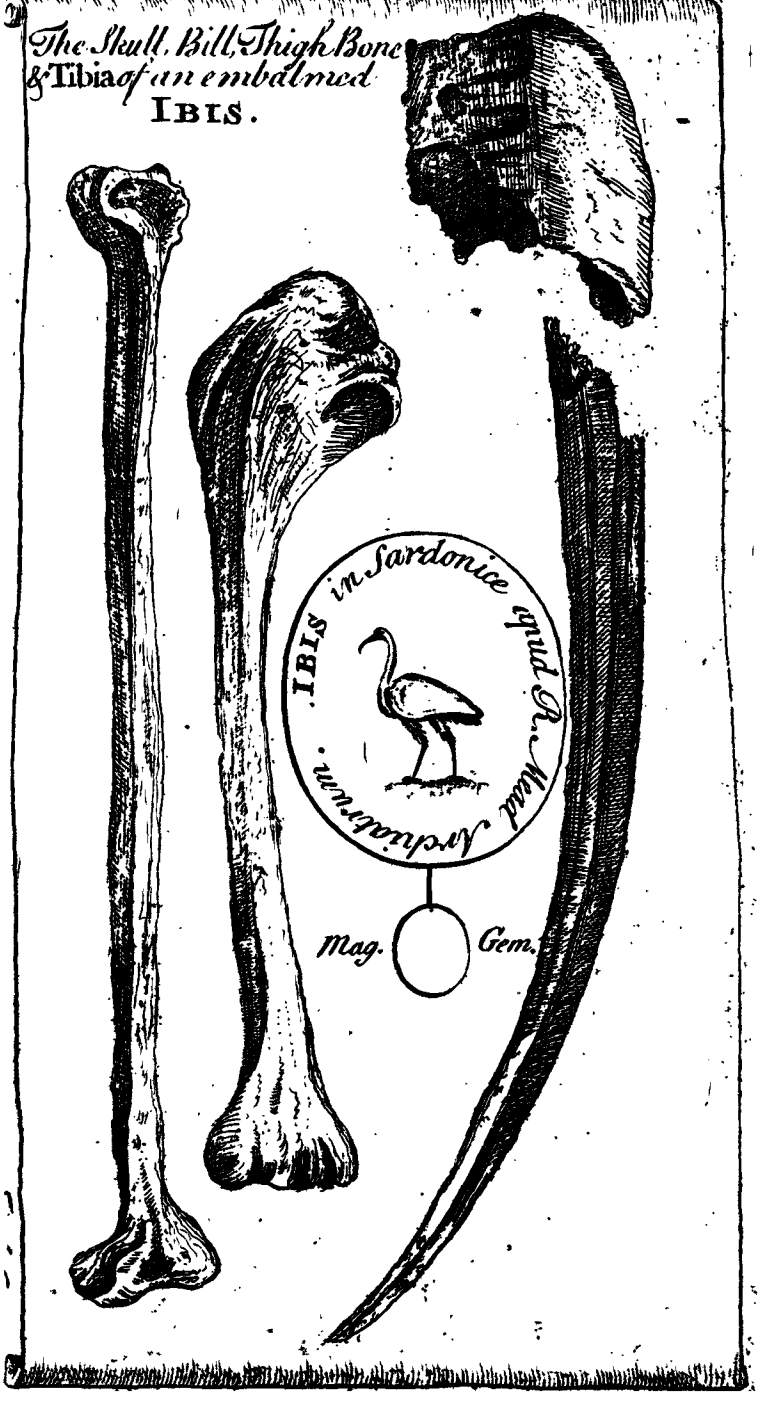
[6] Δορκὰς — ὀξυδερκὲς γὰρ τὸ ζῶον καὶ διόμματον. Etym.

[7] *Herod. Melpom.* p. 324. *Strab.* l. xvii. p. 568. In aridis quidem Ægypti locis, *capreoli* [*inſtead of* dorcades, *there being no other Latin name to expreſs it*] veſcuntur & *bubali*. *Amm. Marcell.* lib. xxii.

ſolitary

to face p. 409.

The Skull, Bill, Thigh Bone & Tibia of an embalmed
IBIS.



ſolitary parts of theſe countries: and ſuch are the *antilope* and *wild beeve*. For the *lerwee* and *lidmee*, though they are equally natives, and perhaps the only other *clean* animals (the *deer* and *bufalo* excepted) that are ſo, yet being not ſo gregarious, or frequently met with, have not been equally taken notice of. The *antilope* likewiſe is in great eſteem, among the *Eaſtern* nations, for food; having a very ſweet muſky taſte, which is highly agreeable to their palates: and therefore the *tzebi* (or *antilope*, as I interpret it) might well be received, as one of the dainties at *Solomon's* table, 1 *Kings* iv. 23. — If then we lay all theſe circumſtances together, they will appear to be much more applicable to the *gazel*, or *antilope*, which is a *quadruped* well known and gregarious; than to the *roe*, *caprea*, or *capreolus*, which was either not known at all, or elſe very rare, in theſe countries.

III. As I ſuſpect the *dama* of *Junius*, or the *fallow deer*, according to our tranſlation, to be a native of theſe ſouthern climates; or, provided it was, would ſtill be comprehended under the *aïle*, or *deer-kind*; *yachmur*[8], the third of theſe animals, may, with more probability, be rendred the *bubalus*, i. e. the *bekker el waſh* (p. 170.) or *wild beeve*; as it is authoriſed by moſt tranſlations. Now it has been already obſerved, that the *bekker el waſh*, or *bubalus*, frequents the more ſolitary parts of theſe countries, no leſs than the *antilope*; and is equally gregarious. Yet it is much larger, being equal to our *ſtag* or *red-deer*; with which likewiſe it agrees in colour; as *yachmur* likewiſe, the ſuppoſed Scripture name (being a derivative from חמר *hommar*, *rubere*) may denote. The fleſh of the *bekker el waſh* is very ſweet and nouriſhing; much preferable to that of the *red-deer*. So that the *yachmur*, or *wild beeve*, as I have rendred it, might well be received, with the *deer* and the *antilope*, at *Solomon's* table, as above-mentioned, 1 *Kings* iv. 23.

The yachmur *is the* bubalus, bekker el waſh, *or* wild beeve.

IV. As the *rupicapra*, *ſylveſtris hircus*, or the *wild goat*, are words of too general ſignification to be received for the *akko*; we may rather take it for that particular *ſpecies* of the *wild goat*, which the LXX and the *Vulgate* call the *tragelaphus*, i. e. the *goat-deer* by interpretation. The *tragelaphus* has been deſcribed, p. 170. under the name of *ſiſhtâll* or *lerwee*; and is probably the very ſame animal, that was brought into this iſland, from *Barbary*, about two centuries ago, and known, in books of *natural hiſtory*, by the name of *tragelaphus*

The akko *the ſame with the* lerwee, *the* tragelaphus, *or* goat-deer.

[8] *Yachmour* (يحمور) the correſpondent name in the *Arabic* verſion, is defined, by *Lexicographi*, to be *Animal bicorne, in ſylvis degens, haud diſſimile cervo, at eo velocius*; which deſcription agrees very well with the *bekker el waſh*.

Caii. As then theſe ſouthern countries afford an animal, to whom this name is highly applicable; *akko* may, with propriety enough, be rendred the *lerwee*, *tragelaphus*, or *goat deer*. The horns of this *ſpecies*, which are furrowed and wrinkled, as in the *goat-kind*, are a foot or fifteen inches long, and bend over the back; though they are ſhorter and more crooked than thoſe of the *ibex* or *ſteinbuck*. In the *Arabic* verſion the *lerwee* (لروى) is given, by tranſpoſition perhaps, for the following *ſpecies* or the *deſhon*; which will rather appear to be the *pygarg*.

The deſhon *is the* lidmee, ſtrepſiceros, addace, *or the* white buttocks.

V. The *deſhon* then, the next in order, is rendred, in moſt tranſlations, the *pygarg*. But what the *pygarg* is, and what are its diſtinguiſhing characteriſtics, will not be ſo eaſily determined. The word itſelf ſeems to denote a creature, whoſe hinder parts are of a white colour; and may therefore be equivalent, in our language, to the *white buttocks*. Such is the *lidmee*, which I have endeavoured to prove, p. 171. to be the *ſtrepſiceros*[9], from the *wreathed* faſhion of its horns; as it might alſo be the *addace*, which ſome authors ſuppoſe[1] to be corruptly given inſtead of *aldaſſem*, the *Hebrew* name. The *lidmee* is ſhaped exactly like the common *antilope*; with which it agrees in colour and in the faſhion of its horns; only that, in the *lidmee* they are of twice the length; as the animal itſelf is of twice the bigneſs. I have one of theſe animals well delineated, upon the reverſe of a medal of *Philip's*, of the large braſs, which I brought with me from *Tiſdrus*; called, by *Mediobarbus*, *capra amalthea*; by *Angelloni*, more juſtly, *gazello*, f. 301. The ſkins of the *lidmee* and *bekker el waſh* (for the *lerwee's* was loſt in tanning) were depoſited, ſome time ago, in the *Muſeum* of the *Royal Society*, where they may be conſulted by the curious.

The thau, *the* oryx *or* bufalo.

VI. We come now to the ſixth *ſpecies*, the *thau*, which has been generally rendred the *oryx*. Now the *oryx* is deſcribed to be of the *goat-kind*[2]; with the hair growing backward or towards the head. It is further deſcribed, to be of the ſize of a *beeve*, according to *Herodotus*[3], and to be likewiſe a fierce creature[4], contrary to what is

[9] Cornua autem erecta, rugarumque ambitu contorta & in leve faſtigium exacuta (ut lyras diceres) *ſtrepſiceroti* data ſunt, quem *addacem* Africa appellat. *Plin.* lib. xi. cap. 37.

[1] *Strepſicerotes* — Sic enim Afri vocant *aldaſſem*, teſte *Plinio*, lib. xi. cap. 37. etſi corrupte legimus *addacem*, appellatione ex nomine Hebræo & articulo eorum depravata. *Jun. & Tremell.* ad *Deut.* xiv. 5.

[2] Caprarum ſylveſtrium generis ſunt & *oryges*; ſoli quibuſdam dicti contrario pilo veſtiri & ad caput verſo. *Plin.* l. viii. c. 53.

[3] Μέγεθος δὲ τὸ θηρίον καλὰ βοῦν ἐστι. *Herod. de Oryge* in *Melp.*

[4] Ὀξύτερος θὴς

Ἀγελόθυμος ΟΡΥΞ, πρυερὸς θήεσσι μάλισα. *Oppian. Cyn.* ver. 45.

obſerved

obſerved of the *goat* or *deer-kind*; or even of the *bubalus* or *bekker el waſh*; which, unleſs they are irritated and highly provoked, are all of them of a ſhy and timorous nature. Now, the only creature that we are acquainted with, to which theſe ſignatures will, in any manner, appertain, is the *bufalo* [5]; which is well known in *Aſia* and *Egypt*, as well as in *Italy* and other parts of *Chriſtendom*. The *bufalo* then may be ſo far reckoned of the *goat-kind*, as the horns are not ſmooth and even, as in the *beeve*; but rough and wrinkled, as in the *goat*. The hair, particularly about the head and neck (for the other parts are thinly cloathed) lies uſually in a rough, curled, irregular manner. It is a little more or leſs of the ſize of a common *beeve*; agreeing ſo far with the deſcription of *Herodotus*. It is alſo a ſullen, malevolent, ſpiteful animal; being often known to purſue the unwary traveller, eſpecially if clad in ſcarlet; as I myſelf have ſeen; whom it will not only purſue, but, if not prevented by force or flight, it will attack and fall upon with great fierceneſs. If the *bufalo* then, as being naturally of a wild and untractable diſpoſition, was not originally reckoned among their flocks [6] (however it may have ſince become tamer and more domeſticated) it may not improperly be taken for the *thau* or *oryx*, whereof we have had hitherto little account.

VII. Thus far we are well acquainted with the animals that ſtill continue to be, as it may be preſumed they have always been, natives of theſe countries. There is no ſmall probability therefore, that they are the very ſame, which were intended by the *Hebrew* names, above-recited. As for the *zômer*, which is the laſt we are to inquire after, it is rendred, in moſt tranſlations, the *camelopardalis*, and in the *Arabic* verſion *jeraffa*, or (زرافة) *zuraffa*; which ſtill continues to be the *Eaſtern* name of that *quadruped*. The *Syriac* explains it by *capra rupicola*, as we do by *chamois*; though neither this nor the *ibex* are, as far as I can learn, inhabitants of theſe countries. *Bochart* calls it *capreæ genus*; which, like moſt of his other names, are too general to be inſtructive. It is probable therefore, from this con- *The* zômer *is the* camelopardalis, *or* jeraffa.

[5] *Buffelum* ex boum (ferorum potiſſimum) genere eſſe tota ipſius corporis figura loquitur —*Buffelus* audax, feruſque, & infenſus homini—Antiquum hujus quadrupedis nomen latet. *Aldrov. de quadr. biſulcis*, p. 365.

[6] *Columella* places the *oryx* amongſt his *feræ pecudes*; an expreſſion that may rather denote the creature to be of a wild, than of a fierce nature. — Feræ fœtæ pecudes, ut capreoli, damæque, nec minus orygum cervorumque genera, & aprorum. — Nec patiendus eſt oryx, aut aper, aliuſve quis ferus ultra quadrimulum ſeneſcere. *Colum.* l. ix. c. 1. What the ſame author obſerves *de ſuibus, olim feræ, nunc pecudes*, may be likewiſe applied to the *oryges, olim feræ, nunc pecudes*.

currence in moſt of the tranſlations (the animal itſelf being likewiſe of the *clean* kind) that the *zômer* may be the ſame with the *jeraffa*. For though the *camelopardalis*, as it is objected by *Bochart*, was a very rare animal, and not known in *Europe*, before *Cæſar's* dictatorſhip (ten of them were exhibited at once, in the *ſecular* games, by the emperor *Philip*) yet, it might ſtill have been common enough in *Egypt*, as it was a native of *Æthiopia*, the adjoining country. It may therefore be preſumed, that the *Iſraelites*, during their long captivity in *Egypt*, were not only well acquainted with it, but might at different times have taſted it.

Theſe animals not to be conſidered according to their numbers, but characteriſtics, &c.

For it is not the number or the plenty of the animals, here enumerated, that is to be regarded, but the nature and quality of them; ſo far, at leaſt, as they agree with the characteriſtics (*Lev.* xi. 3. *Deut.* xiv. 6.) *of chewing the cud, and dividing the hoof*; and we may add, of having horns alſo, with which all the above-mentioned *ſpecies* are armed. Neither are we to confine them altogether, to ſuch *ſpecies* only, as were known to the *Iſraelites* at the giving of the *Law*; but to ſuch likewiſe as, in proceſs of time, and in the courſe of their marches and ſettlements, they might afterwards be acquainted with. So that, upon the whole, and according to the beſt light and knowledge we have, at preſent, in this particular branch of the *ſacred zoology*, *the deer*, *the antilope*, *the wild beeve*, *the goat deer*, *the white buttocks*, *the bufalo*, and *jeraffa*, may lay in the beſt claim to be the *aïle*, *tzabi*, *yachmur*, *akko*, *deſhon*, *thau*, and *zômer* of the *H. Scriptures*.

Difficulties with regard to the names and characteriſtics of clean *and* unclean *birds.*

If, from the *quadrupeds*, we carry our inquiries into the names and characteriſtics of *birds*, we ſhall find the ſame difficulties, that were complained of above, ſtill increaſing upon us. For it was eaſy, by the plain and obvious characteriſtics of *chewing the cud and dividing the hoof*, to diſtinguiſh the *clean quadrupeds* from thoſe that were *unclean*. But we find no ſuch general and infallible diſtinction to have been applied to *birds*. For to be *granivorous*, alone, could not be the *ſpecific* mark of thoſe that were *clean*; inaſmuch as the *oſtrich*, and ſeveral others which were intirely excluded, would then have appertained to this tribe. Or, if we underſtand טהר *tohowr*, which we tranſlate *clean*, to intimate the *chaſtity* of them, in oppoſition to ſuch as were *ſalacious*; what *birds* agree more with the latter of theſe characters, than the *dove* and the *pigeon?* which, notwithſtanding, were reckoned *clean*, and univerſally allowed both for food and ſacrifice. Or if *tohowr* ſhould denote a clean eater, in contradiſtinction to thoſe that live upon rapine, carrion, and naſtineſs (which may probably be the beſt conſtruction of the word) yet even this cannot be univerſally

ſally received; becauſe the tamer *ſpecies* of the *gallinaceous kind* are as fond of carrion and naſtineſs, wherever they find it, as ſome of the birds of prey. In the *rabbinical* learning, among other vague non-identifying characteriſtics, the *clean birds* have aſſigned to each of them, a *ſwoln neck, and an hinder toe extraordinary:* expreſſive perhaps of the *crops* and *ſpurs*, as we call them, of the *gallinaceous kind*. But then, ſeveral of thoſe that are web-footed and *clean*, ſuch as the *gooſe* and the *duck*, would be excluded; inaſmuch as they are deficient in one or other of theſe *tokens*.

The original names of ſome of the unclean birds *not well interpreted.*

Or, if we ſuppoſe, that all *birds* were *clean* in general, except thoſe which are particularly recited by their names (*Lev.* xi. and *Deut.* xiv.) as *unclean*; — yet ſtill we ſhall be at a loſs, unleſs we could be ſure, that a right interpretation has been put upon *theſe* names by our tranſlators. On the contrary, how little truth and certainty we are likely to obtain in this point, will appear from the great variety and diſagreement, which we find in their reſpective interpretations. For it may be preſumed, that every tranſlator, for want of being acquainted with the animals peculiar to *theſe eaſtern countries*, would accommodate the *Hebrew* names, as well as he could, to thoſe of his *own*. Thus (הדיה) *haddayoh* (*Deut.* xiv. 13.) is rendred the *vultur*, and deſcribed to be *after his kind*. But as we are hitherto acquainted with one *ſpecies* only in theſe countries, it is improperly ſaid to be *after his kind*. *Haddayoh*, therefore, muſt be the name of ſome other *bird*, of a more extenſive family. In like manner, if (אנפה) *anophoh* is rightly tranſlated the *heron* (ver. 18.) which likewiſe was *after his kind*; then the *ſtork*, from the near affinity to it, would not have been diſtinctly given, but included in that tribe. One or other therefore of theſe original names muſt belong to ſome other *bird*, not here ſpecified. The *kite* or *glede* alſo, ſhould not have been particularly mentioned, provided (הנץ) *haneitz* is the *hawk*; becauſe as *this* was *after his kind* (*Levit.* xi. 16.) the *kite* or *glede* would be conſidered only as a *ſpecies*. And it may be further obſerved, particularly with regard to our own tranſlation, that the *oſſifrage* and the *oſpray* (*Deut.* xiv. 12.) the *kite* likewiſe and the *glede* (ver. 13.) are generally taken for ſynonymous terms; and conſequently our *Engliſh* catalogue will fall ſhort, by two at leaſt, of the number, that is given us in the original.

Creeping fowls; *their difficulties.* 1. *With regard to the* kinds.

If we paſs on from the *birds*, to *the fowls that creep, going upon all four* (*Levit.* xi. 20, *etc.*) which is the Scripture deſcription of *inſects*; we ſhall find this claſs of animals to be attended with no fewer difficulties than the former. For if the *beetle*, as we render (חרגל) *hargol* (ver. 22.) was to be eaten *after his kind*, then, among others,

the *ſcarabæus ſtercorarius*, the filthieſt of animals, was to be eaten. The *locuſt* too, as it was to be eaten *after his kind*, would, properly, have included the *bald locuſt* (perhaps the *mantis*) and the *graſshopper*. The *bald locuſt* and *graſshopper* therefore, inſtead of being laid down γενικῶς, as *kinds*, ſhould have rather been conſidered εἰδικῶς, as *ſpecies* only of the *locuſt*-kind, and omitted upon that account. And indeed, the characteriſtics of this family, as they are given us in all tranſlations, ſeem to be laid down with very little propriety.

2. With regard to the characteriſtics.

For, in the firſt place (שרץ העוף) *ſhairetz ho-oph*, which we render *fowls that creep*, may be more properly tranſlated *breeding fowls*, or *fowls that multiply*; from the infinitely greater number of eggs, that are produced by *inſects*, than by *volatiles* of any other kind. It may be obſerved again, that *inſects* do not properly *walk upon four*, but *ſix* feet. Ἐξάποδα γὰρ τὰ πταῦτα πάντα εἰσὶν, ſays *Ariſtotle* (l. iv. c. 6. *De uſu part.*) *His omnibus*, ſays *Pliny* (l. xi. c. 48.) *ſunt ſeni pedes*. Neither is there any adequate deſcription, peculiar to this tribe, conveyed to us, by their being ſaid, *to have legs upon their feet, to leap withal upon the earth:* becauſe they have *this*, in common only, with *birds*, *frogs*, and ſeveral other creatures. The original expreſſion therefore (אשר לא כרעים ממעל לורליו לנתר) *aſher lo keraim memaal lerigeleou lenettar*, &c. may probably bear this conſtruction: viz. *which have knees upon*, or *above*, *their* hinder *legs to leap*[7] *withal upon the earth*. For, to apply this deſcription to the *locuſt* or (הרבה) *harbah* (the only one, we know, of the four[8], that are mentioned *Lev.* xi. 22.) this *inſect* has the two hindermoſt of its legs or feet, much ſtronger, larger, and longer, than any of the foremoſt. In them, the knee, or the articulation of the leg and thigh is diſtinguiſhed by a remarkable bending or curvature; whereby it is able, whenever prepared to jump, to ſpring and raiſe itſelf up, with great force and activity. As the principal diſtinction therefore, betwixt the *clean* and *unclean inſects*, ſeems to have depended upon *this* particular ſhape and ſtructure of the hinder feet; the action, which is aſcribed to the *clean inſects*, of *going upon four* (*viz.* the foremoſt feet) and *leaping upon the (two) hindermoſt*, is a characteriſtic, as expreſſive of the original text, as it is of the animals, to whom it appertains.

Difficulties with regard to reptiles.

After the *creeping fowls*, let us, in the laſt place, take a ſhort ſurvey of (שרץ השרץ) *ſhairetz haſhairetz*, *the creeping things* (*Lev.* xi. 29, 30.) *that creep*, or (as *ſhairetz* is taken above and *Gen.* i. 20, 21.)

[7] Inſecta, quæ noviſſimos pedes habent longos, ſaliunt, ut locuſtæ. *Plin.* l. xi. c. 84.

[8] *Viz.* ארבה *arbah*, סלעם *ſailam*, חרגל *chargol*, חגב *chogab*: the three latter being ἅπαξ λεγόμενα. See the figure of the locuſt, in plate, p. 348.

which bring forth abundantly, upon the earth. As this then appears to be the Scripture-phraſe for *reptiles*; which are further deſcribed to be, *multiparous*; with what propriety can we place among them, the *weaſel*, the *mouſe*, the *ferret*, or the *mole*; which are no greater breeders, than a variety of others of the leſſer viviparous *quadrupeds?* For the *tortoiſe*, the *chamæleon*, the *lizard*, and the *ſnail* (the *ſlug* rather, or *limax*) are animals of a quite different nature, habit, and complexion; having all of them ſmooth ſkins, and are likewiſe oviparous. Whereas the others partake altogether of ſuch actions and characteriſtics, as are peculiar to the *hairy-viviparous-unclean quadrupeds, that have paws for fingers* (*Lev.* xi. 2, 3, 27.) and would, of courſe, be included among *them*. Inſtead of the *weaſel* therefore, *&c.* may we not, with more propriety, join to this claſs, the *toad*, the *ſnail* (or *cochlea terreſtris*) the *ſkink* (or κροκόδειλος ὁ χερσαῖος LXX.) the *crocodile*, or ſome other oviparous animals, of the like prolific nature and quality?

The names of the reptiles *not eaſily aſcertained.*

But ſtill, the greateſt difficulty will lie in appropriating the original names, reſpectively, to theſe, or (if they are not approved of) to other *ſpecies* of the *prolific oviparous* animals, that may be found more ſuitable to them, or more peculiar to theſe countries. Among the reſt, however, it may be preſumed, that (תנשמת) *tinſameth* bears no ſmall relation to *champſa*, or *timſah*, the *Egyptian* appellation for the *crocodile*; as (צב) *tzab* and (לטאה) *letaah* have been already ſuppoſed, p. 178. to be the *dhaab* and *taitah*; the *Arabic* names, at this time, for the *caudiverbera* and the *chamæleon*. But how variouſly interpreters have underſtood the original names of this claſs of animals will ſufficiently appear from the general view that is here given of them.

Heb.	חולד *Cholid.*	עכבר *Akber.*	צב *Tzab.*	אנקה *Anakah.*	כח *Côch.*	לטאה *Letaah.*	חמט *Chomet.*	תנשמת *Tin-ſameth.*
LXX.	Γάλη.	Μῦς.	Κροκόδειλος.	Μυγάλη.	Χαμαιλέων.	Χαλαβώτης.	Σαῦρα.	Ἀσπάλαξ.
Vulg.	Muſtela.	Mus.	Crocodilus.	Mygale.	Chamæleon.	Stellio.	Lacerta.	Talpa.
Syr.	Id.	Id.	Id.	Lacerta.	Talpa.	Salamandra.	Stellio.	Centipeda.
Pagn.	Id.	Id.	Rubeta.	Viverra.	Lacerta.	Stellio.	Limax.	Talpa.
Jun. Tre.	Id.	Id.	Teſtudo.	Attalabus.	Id.	Id.	Chamæleon.	Glis.
Boch.	Talpa.	Mus agreſtis.	Crocodilus terreſtris.	Stellionis genus.	Warral *Arab.*	Lacerta ſtellioni ſimilis.	Lacerta arenaria.	Chamæleon.
Eng.	Weaſel.	Mouſe.	Tortoiſe.	Ferret.	Cameleon.	Lyzard.	Snail.	Mole.

But,

Difficulties with regard to other animals; and likewiſe to plants.

But, beſides the great variety of animals, which have been already taken notice of, from *Lev.* xi. and *Deut.* xiv. the Scriptures afford us a number of others; (ſuch as the *behemoth*, the *leviathan*, the *reem*, the *kaath*, the *tannim*, *&c.*) that are no leſs difficult to explain; which will be the ſubject of the following ſection. With regard likewiſe to the *botanical* part of the *natural hiſtory* of the H. Scriptures, we meet with the like doubts and obſcurities; the *dudaim*, the *kikaion*, the *gopher*[8] *wood*, the *almug tree*, with many others, continuing ſtill in diſpute, notwithſtanding the ſame pains and labour have been equally beſtowed upon *that ſubject*, as upon the *zoology*. For it muſt be univerſally acknowledged, that we are hitherto very imperfectly inſtructed, and want therefore to be much better acquainted, with the real objects and things themſelves, before we can be able to aſcertain, with any certainty, their reſpective names, diſtinctions, and varieties. The names, likewiſe, which they are called by, at preſent, in theſe *Eaſtern* countries, would be of great aſſiſtance; as ſome of them, it may be preſumed, continue to be the very ſame; whilſt others may be traditional of, or derivatives[9] from, the originals.

[8] In *Hutter's Cubus* the word גפר (which *Hiller*, in his *Hierophyticon*, ſuppoſes to be the ſame, by a tranſpoſition of letters, with גרף, and that the עצי גפר *Gen.* vi. 14. conſequently muſt ſignify ξύλα τετραγωνα, or *boards ſmoothed with the plane*). ſeems to be well rendered *pinus picea*, or the *torch pine*. And as the derivative גפרית is, in ſeveral places of Scripture, expreſſed in our tranſlation by *brimſtone*, the moſt inflammable of minerals, *gopher-wood* may be the ſame with wood that will eaſily take fire; ſuch as is the wood of the *pine*, the *cedar*, and other reſiniferous trees. Beſides the *cedar* and *fir* that were brought to *Solomon* from *Libanus*, we read likewiſe, 2 *Chron.* of the *almug*, or, by a tranſpoſition of letters, the *algum* tree. This we may take for the *cypreſs*, which *Diodorus Siculus*, l. xix. c. 58. and *Bochart* in *Phaleg.* l. c. 4. acquaint us was equally known and flouriſhing in thoſe parts. Of the *almug* trees likewiſe were made *harps* and *pſalteries* for the ſingers (1 *Kings* x. 12. 2 *Chron.* ix 11.) the wood of it, no doubt, being of the cloſeſt grain, and fitteſt conſequently for that purpoſe. The like uſe is ſtill made in *Italy*, and other places, of the *cypreſs* wood, which is preferred to all others for violins, harpſichords, and other the like ſtringed inſtruments. *Hiller*, in his *Hierophyticon*, makes *algumim*, or *almuggim* (as עצי, which is joined with it, is made to ſignify either *wood* or *trees*) to be the general name only for *the wood of the gum-bearing trees*, or for the trees themſelves. Quid enim (ſays he, p. 106.) אלגומים quam אגל גומים *gutta gummium?* quid אלמוגים quam גאלי מוגים *liquidorum guttæ? Omnia enim gummium genera primo liquida ex arbore manant, deinde ſiccantur et dureſcunt.* But as the *cedar trees* and the *fir trees* are joined with the *almug* or *algum trees*, ſome particular *ſpecies*, rather than the whole *genus*, may be preſumed to have been here rather intended.

[9] Thus the word *neſſer* (נשר) which is always rendred the *eagle*, is applied by the *Arabs* to the *vultur* only, which is a more ſpecious bird: and indeed, from the *baldneſs* aſcribed to the *neſſer* (*Mic.* i. 16.) we ſhould rather take *neſſer* for the *vultur*

We

We muſt wait therefore for the aid and aſſiſtance of ſome future diſcoveries and obſervations, before theſe branches of natural knowledge are brought to any tolerable degree of certainty. And indeed, provided every curious perſon, who has the good fortune to be acquainted with theſe countries, would contribute *his ſhare*, towards this valuable undertaking; it could not be long (according to the prevailing humour of travelling in this age) before a laudable, if not a ſufficient quantity of materials might be collected for this purpoſe. *Future diſcoveries neceſſary to clear up theſe difficulties.*

SECT. VII.

Of the Moſaic *pavement at* Præneſte, *relating to ſome of the animals and plants of* Egypt *and* Æthiopia.

TILL the Scripture-*zoology* and *botany* then, are more fully and accurately conſidered and underſtood, it may be a digreſſion, not at all foreign to this ſubject, to give the reader, as an introduction to them both, a ſhort deſcription of the *moſaic pavement* [1] at *Præneſte*; which lays before us, in a very beautiful manner, not only a great variety of the animals, but of the *plants* likewiſe, that are mentioned in the *Sacred writings*. It were to be wiſhed indeed, that we had a correcter copy of it, carefully compared with the original; becauſe the names, as well as the characteriſtics, particularly of ſome of the animals there exhibited, may be ſuſpected to have been either ignorantly or injudiciouſly taken. However, notwithſtanding theſe few ſuppoſed faults and inaccuracies, the *whole* is a very valuable and inſtructive piece of antiquity; and preſents us with a greater number and variety of curious objects, relating both to the *civil* and to the *natural* hiſtory of *Egypt* and *Æthiopia*, than are any where elſe to be met with. *The Scripture zoology illuſtrated from the moſaic pavement at Præneſte.*

(which has no feathers, but a little white down only upon the head and neck) than for the *eagle*, which is properly cloathed with feathers in thoſe parts: for what is commonly called the *bald buzzard* or *eagle*, is not really ſo, but differs from the other *ſpecies* by the white feathers upon the crown. The *dhaab*, the *taitah*, *&c.* above-mentioned, may be other inſtances. Among the plants likewiſe, *ailoh* (אלה) which is commonly rendred the *oak*, is in *Barbary*, among the *Arabs*, the ordinary name for a beautiful *berry-bearing tree*, otherwiſe called *azedarach*. The *ſaſſaf* too of the *Arabs*, by which they underſtand the *abeile* or *poplar*, is the very ſame with the צפצף *Ez.* xvii. 5. which we render the *willow tree*.

[1] See the hiſtory *&c.* of this *moſaic pavement* in Father *Montfaucon's Antiquities*, vol. xiv.

The

The conqueſt of Egypt *by* Alexander *repreſented.*

The conqueſt of *Egypt*, which ſeems to be that part of *Alexander's* hiſtory which is here repreſented, is diſplayed with all imaginable art and elegance. We ſee that *hero* (α) ſtanding, in a commanding attitude, under a magnificent tent or *canopy*, attended by his warlike companions, and impatiently waiting for the tribute and ſubmiſſion of the *Perſians* (β); which, in a very ſolemn proceſſion, they are haſtning to pay him.

A great variety likewiſe of other objects repreſented.

On the right ſide of this curious *groupe*, and all the way from thence, to the utmoſt extent of the *pavement*, we are entertained, at every turn (amidſt a variety of plants and animals) with different proſpects of cities (γ), temples (δ), caſtles (ε), bowers (ζ), dove-houſes (ϛ), toils [2] for fiſh (y), the method of ſitting at their banquets (x), *&c.* We ſee the faſhion likewiſe of the *Egyptian* boats (η), and of the *Grecian* galleys (ϑ), together with the quality of their ſails and oars; and in what manner they are each of them managed, conducted, and employed. The habits and dreſs, the arms likewiſe and weapons of the *Greeks*, no leſs than of the *Egyptians* and *Ethiopians*, are often exhibited: and, from the *ſcorpion*, which is *charged* upon ſome of the *Grecian* ſhields, we may conclude them to have been of *Commagene*, and that the *bearing of* ſuch like military *devices* was much older than the *croiſades*. Beſides all this variety of objects, we are entertained with a view of their reſpective actions, exerciſes, and diverſions: and, under the lower bower (ζ), we ſee a perſon playing upon an inſtrument; the very ſame with the *gaſpah* of the preſent *Arabs* (p. 202.) or the *German* flute of theſe times. The faſhion likewiſe of their cups, or, as we may rather call them, *drinking-horns*, is here depicted.

Heliopolis, *with its* obeliſks; *&c. repreſented.*

At *Heliopolis* (Ξ) (*i. e. Bethſhemeſh*, or *the houſe* or *city of the Sun*, Jer. xliii. 13.) we are very agreeably entertained with the *obeliſks* (ξ) that were erected before it [3]. This city is further diſtinguiſhed by a beautiful temple (π), the *temple of the Sun*, with the prieſts (P) ſtanding before the *portico* [4], cloathed in white linen garments [5]; circumſtances, which are all of them very applicable to the ancient hiſtory of this city. The figure likewiſe, as it appears to be, of a wel (σ),

[2] Theſe toils continue to be uſed by the *Egyptians*, to this day. They are made up of ſeveral hurdles of reeds, fixed, in ſome convenient part of the river, in various windings and directions, and ending in a ſmall point; into which the fiſh being driven, are taken out with nets or baſkets, as is here repreſented. The like practice has been taken notice of, p. 112.

[3] Vid. *Diod. Sic.* l. i. p. 38. *Strab.* l. xvii. p. 554. ed. Caſaub. *Plin.* l. xxxvi. c. 8. Vid. ſupra, p. 366.

[4] *Strab.* ut ſupra, p. 553, 4. [5] *Herod. Eut.* p. 116. ed. Steph.

makes

makes part of this *groupe*; the bottom whereof is of a blue colour, to denote the *epithet* of *cærulea*, that was applicable to water [6]. This too might have been designed to represent the *fons ſolis* or *ain el ſhims* [7]; the ſame fountain of freſh water, for which *Mattarea* (as *Heliopolis* is now called) continues to be remarkable.

After *Heliopolis* we have the proſpect of *Babylon* (Σ), ſo called from the *Babylonians*, who were the founders of it. It is diſtinguiſhed by a round tower, or caſtle (ε), the φρούριον ἐρυμνὸν, as *Strabo* [8] calls it, being the firſt part of the city that was built. *Babylon* was formerly called *Latopolis* [9], as it is at preſent *Old* and *New Kairo*; and, together with *Heliopolis*, made part of the *land of Goſhen*. Babylon *with its caſtle.*

On the other ſide of the river, towards *Libya*, is the city *Memphis* (Ω), diſtinguiſhed by ſeveral *coloſſal* ſtatues (ω), *Hermes's*, or *mummies* rather; the *ſtantia buſto corpora*, as *Silius Italicus* [1] expreſſes it. The particular ſhape and figure of the *baſement* (ψ), upon which the city is built, may be very well intended to repreſent the banks and ramparts [2], that were raiſed on each ſide of it, to ſecure it from the inundations and ravages of the *Nile*. *The city* Memphis.

Upon a review, therefore, of all theſe remarkable circumſtances, ſo applicable to *Alexander's* expedition in particular, and to the ancient ſtate of *Egypt*, in general; there appears to be no ſmall proof and evidence, that the artiſt, whether *Greek* or *Roman*, had made himſelf as well acquainted with the *topography* and *civil* hiſtory of *Egypt*, as, from the following circumſtances, he will appear to have been converſant in the *natural*. *This* pavement *is no fiction, but a real repreſentation of* Egypt.

If we begin then with the animals; it may be obſerved of them, in general, that, I. Some being better known, as we may imagine, than the reſt, are therefore delineated without names. II. Others have their names annexed to them in *Greek* capitals; of which ſome are well known. III. Others, though their names are known, yet the animals themſelves have not been accurately deſcribed. IV. Others again there are, whoſe names are either unknown, or elſe have a dubious ſignification. I ſhall treat of theſe in their order. *Of the animals in general.*

I. Among thoſe therefore of the firſt claſs, the precedency ſhall be given to the *crocodile* (H), which, from the *ſcaly quality* (*Ezek.* xxix. 4.) and hardneſs of its coat, or, *becauſe his ſcales ſo ſtick together that they cannot be ſundred*, Job xli. 17. is therefore in no danger (ver. 7.) *of having his ſkin filled with barbed irons, or his head with* I. *Of the animals without names.* *The* crocodile, *or* leviathan;

[6] *Ovid. Met.* l. viii. ver. 229. [7] Vid. not. 8. p. 306. [8] Lib. xvii. p. 1160.
[9] Vid. p. 306. [1] Vid. not. 5. p. 372. [2] Vid. p. 302.

fiſh-

fiſh-ſpears. The *crocodile* likewiſe is of too great weight and magnitude (ver. 1.) *to be drawn out of the river*, as fiſh uſually are, *with a hook.* The *crocodile* then, from theſe appoſite characteriſtics, may be well taken for the *leviathan*, as it is deſcribed in the book of *Job*, and elſewhere alluded to in the H. Scriptures: where the *leviathan* is called *the piercing ſerpent* or *dragon*, Iſ. xxvii. 1. where *Pharaoh* is called *the great dragon* or *leviathan*, Ezek. xxix. 3. where *the heads alſo of the leviathan (i. e.* of *Pharaoh* or *Egypt)* are ſaid to be broken in pieces, *Pſ.* lxxiv. 14. otherwiſe expreſſed, in the preceding verſe, *by breaking the heads of the dragons in the waters*, or *in the Red-ſea.* See *Ezek.* xv. 6. There is no ſmall probability likewiſe (as, in the earlier ages, there was no great propriety in the *Latin* names of animals, p. 172.) that the *dragon* or *ſerpent*, ſuch an one as *Regulus* is ſaid to have defeated, with ſo much difficulty, upon the banks of the *Bagradas*, was no other than the *crocodile.* For, this animal alone (from the enormous ſize, to which it ſometimes arrives; from the almoſt impenetrable quality of its ſkin, which, we read, would hardly ſubmit to the force of warlike engines) will beſt anſwer, as none of the *ſerpent* kind, properly ſo called, will do, to that deſcription.

and Regulus's ſerpent.

The hippopotamus *is the* behemoth,

The *hippopotamus*, or *river-horſe* (I) is here expreſſed, as hiding and ſheltering itſelf among the reeds of the *Nile.* Now the *behemoth* is deſcribed, *Job* xl. 21, 22. *to lie in the coverts of the reeds and fens*, and *to be compaſſed about by the willows of the brook.* The *river horſe* feeds upon the herbage of the *Nile*; and the *behemoth* is ſaid (ver. 15.) *to eat graſs like an ox.* No creature is known to have ſtronger limbs than the *river horſe*; and *the bones of the behemoth* (ver. 18.) *are ſaid to be as ſtrong pieces of braſs; his bones are like bars of iron.* From all which characteriſtics, the *behemoth* and the *river horſe*, appear to be one and the ſame creature. And then again, as the *river horſe* is properly an amphibious animal, living conſtantly in fens and rivers; and might likewiſe, as it was one of its largeſt and moſt remarkable creatures, be emblematical or ſignificative of *Egypt*, to which the *Pſalmiſt* might allude, *Pſal.* lxviii. 30; the *river horſe*, I ſay, may, with much greater propriety than the *lion* or *wild boar*, be received for *the beaſt of the reeds*, as חית קנה *hhayath konah*, it better interpreted there, *the company of ſpearmen*, according to our tranſlation. As for the *lion* and *wild boar*, one or other of which ſome have imagined to be this *hhayath konah*, they may, with more propriety, be ſaid to retire into, or to ſhelter themſelves among, the tamariſks and the willows that attend watry places, than, out of choice or election, to live and make their conſtant abode therein. For the retiring,

or beaſt of the reeds.

retiring, particularly of the *lion* out of these thickets, *upon the swelling of Jordan*, supposes it by no means to be *amphibious*, as the *river horse* certainly was.

The *camelopardalis*[3] (K) or *jeraffa* (as it is called in *Egypt*, and the *Eastern* countries, the *zômer* of the H. Scriptures, p. 417.) is sufficiently identified by its spotted skin and long neck. A little calf, as if it were just dropt from it, is lying by it. *The* camelopardalis, *or* jeraffa.

The *cercopithecus* (Z), a noted *Egyptian* deity, is more than once expressed: as is also the *dog* (M), the *latrator Anubis*, according to its symbolical name: which, from the shape of it, as it is here expressed, should be that particular *species*, which is called the *canis Graius* or *grey-hound*. Now, as this *quadruped* is more remarkably contracted, or (according to the Scripture name) *girt in the loins*, Prov. xxx. 31. than most other animals; as it is likewise one of the swiftest; our interpreters seem to have judiciously joined it with the *lion* and *the goat*, among *those* three animals (ver. 29.) *that* are said to *go well* and *are comely in going*. *The* cercopithecus. *The* greyhound, *or* Anubis.

At a little distance from one of these *greyhounds* (*M), we have a smaller *quadruped* (N), which a large gaping serpent is ready to devour. This, from the size and shape, may be intended for the *ichneumon*; which, *Diodorus Siculus* tells us, was of the size of a *lap-dog*. *The* ichneumon.

The riding upon *mules* seems to have been of no less antiquity in *Egypt*, than in other *Eastern* countries[4]; as appears from one of them, with a rider upon it, under the walls of *Memphis* (Ω). The rider perhaps was sent to apprize the *capital* of *Alexander's* invasion: as the person behind him on foot may denote the *mule* itself to have been hired; according to the like customary attendance of the owner, even to this day. *Riding on* mules.

This *pavement* does not exhibit to us a great variety of *birds*. Among those that appear to be of the *web-footed* kind, we may take *The* goose, *and* onocrotalus, *or* pelican.

[3] Καμηλοπαρδάλεις — οὐδὲν ὅμοιον ἔχουσαι παρδάλει· τὸ γὰρ ποικίλον τῆς χρόας (νεβρῖσι *Cas.*) νεβρίσι μᾶλλον ἔοικε ῥᾳβδωτοῖς πίλοις κατεστιγμέναι· τελέως δὲ τὰ ὀπίσθια ταπεινότερα τῶν ἐμπροσθίων ἐστίν. ὥστε δοκεῖν συγκαθῆσθαι τῷ οὐραίῳ μέρει, τὸ ὕψος βοὸς ἔχοντι. — Τράχηλος δὲ εἰς ὕψος ἐξηρτημένος ὀρθὸς, &c. *Strab.* l. xvi. p. 533. ed. *Casaub.* *Nabin* Æthiopes vocant, collo similem equo, pedibus & cruribus bovi, camelo capite, albis maculis rutilum colorem distinguentibus; unde appellata *camelopardalis*. Plin. l. viii. c. 18. Figura ut camelus, maculis ut panthera. *Var. ling. Lat.*

Diversum confusa genus panthera camelo.
Polit. cap. iii. *Miscell.* Vid. p. 417.

[4] 2 *Sam.* xiii. 29. 1 *Kings* i. 33. *Esth.* viii. 10. *Is.* lxvi. 17.

the ſmaller *ſpecies* of them (Q), to be the *gooſe*, one of their ſacred animals; as the larger may repreſent the *onocrotalus* (R), another noted bird of the *Nile*, otherwiſe called the *pelican*. The remarkable pouch, or bag, that is ſuſpended from the bill and throat of this bird, ſerves not only as a repoſitory for its food, but as a net likewiſe, wherewithal to catch it. And, it may be further obſerved, that in feeding its young ones (whether this bag is loaded with water or more ſolid food) the *onocrotalus* ſqueezes the contents of it into their mouths, by ſtrongly compreſſing it upon its breaſt with its bill: an action, which might well give occaſion to the received tradition and report, that the *pelican*, in feeding her young, pierced her own breaſt, and nouriſhed them with her blood. קאת *kaath*, which in *Lev.* xi. 18. *Deut.* xiv. 17. *Pſal.* cii. 6. *Iſ.* xxxiv. 11. *Zeph.* ii. 14. is tranſlated in the text, or elſe in the margin, *the pelican*, can be no ſuch bird; eſpecially as it is there deſcribed to be a bird *of the wilderneſs*. For its large webbed-feet, the capacious pouch, with the manner of catching its food, which can be only in the water, ſhews it intirely to be a *water-fowl*, that muſt of neceſſity ſtarve in the deſert.

The ibis, otis, *and* ſtork.

Among the *birds* of the *crane* kind (S), we may pronounce one or other of them to be the *ibis*, from the curvature of its bill: As among the others, we are to look for the *ſtork* and the *damoiſelle*, the dancing bird, or *otis* of the ancients; which are every where to be met with.

The phœnix *was* the bird of paradiſe.

Beſides the *eagle* (T), which is diſplayed, in a flying poſture, over one of the gates of *Memphis*; we ſhould not overlook that beautiful bird (u), adorned with a blueiſh plumage mixed with red. This ſits perching upon the ſame tree with the ΚΗΙΠΕΝ: and provided the artiſt, in the courſe of theſe drawings, had taken the liberty to indulge his invention, we might have imagined it to have been intended for the *phœnix*, a bird that we are ſo little acquainted with. *Herodotus* acquaints us [5], that he ſaw one of them painted; which, though different from this, as being covered with red and yellow feathers, yet appears to be no other than the *manucodiata*, or *bird of paradiſe*; and therefore this and the *phœnix* were probably the ſame. However, if the bird here diſplayed cannot be admitted among *the birds of paradiſe*, we may ſuſpect it at leaſt to be the *peacock*, which

[5] Ἔςι δὲ καὶ ἄλλος ὄρνις ἱρὸς, τῷ οὔνομα Φοῖνιξ. Ἐγὼ μὲν μιν οὐκ εἶδον, εἰ μὴ ὅσον γραφῇ· ἔςι δὲ ἐν τῇ γραφῇ παρόμοιος, τοσόςδε καὶ τοιόςδε. Τὰ μὲν αὐτοῦ χρυσόκομα [χρυσόχροα *Tan. Fab.*] τῶν πτερῶν, τὰ δὲ ἐρυθρά. ἐς τὰ μάλιςα αἰετῷ περιήγησιν ὁμοιότατος, καὶ τὸ μέγεθος. *Herod. Eut.* p. 131.

was a native of *Æthiopia*, and brought, with other animals and curiosities, from the south east parts of that country, to king *Solomon*, 2 *Chron.* ix. 21.

As, in the whole course of these figures, a particular regard seems to have been had to the sacred animals of *Egypt*, the *fish* (Δ), that is exhibited below one of the *pelicans* (R), may be received for the *lepidotus* [6]. *The* lepidotus.

There is room to conjecture, from a couple of *tortoises* (O), that are sunning themselves upon a bank of sand; and from the like number of *crabs* (P), that are swimming in the waters; that the inland parts of these countries were productive of both these animals. *The* tortoise. *The* crab.

Among the *reptiles*, we are entertained with some few *species* of the *serpentine* kind: though, it is somewhat extraordinary, that none of them should have the marks and signatures of the *cerastes*, which was so well known in *Egypt*. The common *snake*, which may be exhibited among them, is called, by the inhabitants of these countries, *hannesh*; which, by an easy transition and change of letters, is of the same force and sound, with the Scripture [נחש] *nahhesh*. This, *Gen.* iii. 1. is said *to be more subtle than all the* other *beasts of the field*; a character, how applicable soever it may be to the whole *genus*; yet it appears, in this text, to be only attributed to one particular *species*. The *common snake* therefore, the same with the *natrix torquata* and the *anguis* of *Æsculapius*, was the very species of the *serpentine* kind that beguiled our *first parents*. *The* cerastes *not delineated.* *The* natrix *or* nahhesh.

Others of this family (W), are represented of an enormous size; being probably intended for that branch of it, which are commonly called δράκοντες by the *Greeks*, and [תנינים] *tanninim* [7] by the sacred *The* δράκοντες *or* dragons.

[6] Νομίζουσι δὲ καὶ τῶν ἰχθύων τὸν καλούμενον Λεπιδωτὸν ἱερὸν εἶναι, καὶ τὴν ἔγχελυν. *Herod. Eut.* p. 131. The following species of fish are ascribed to the *Nile* by *Athenæus*, *Deipnos.* l. vi. *viz.* Νάρχη, χοῖρος, σιμὸς, φάγρος, ὀξύρυγχος, ἀλλάβης, σίλουρος, συνοδοντὶς, ἐλέωτρις, ἔγχελυς, θρίσσα, ἄβραμις, τύφλη, λεπιδωτὸς, φύσα, κεστρεύς· καὶ ἄλλοι οὐκ ὀλίγοι.

[7] There is no word in Scripture of a more indetermined meaning than תנין תנות, תנינים or תנים; being sometimes taken for great fishes, for serpents, and sometimes for howling animals, or *jackalls*. *Rabbi Tanchum*, whose opinion is espoused by the great Dr. *Pococke*, *Hos.* i. 8. and by his learned successor Dr. *Hunt* (*Orat. inaug.*) lays down a general rule how to distinguish the several interpretations that are to be put upon the words; *viz.* that wheresoever תנים, תנין or תנות are plurals, they signify those *howling wild beasts* that inhabit desolate places; but that תנינים with תנים and תנין in the singular, may be rendred *dragons*, *serpents*, *whales*, or the like. And accordingly תנים *Job* xxx. 29. *Psal.* xliv. 19. *Is.* xiii. 22. and xxxiv. 13. and xxxv. 7. and xliii. 20. *Jer.* ix. 11. and x. 22. and xlix.

writers.

writers. The largeſt of theſe (X), has ſeized upon a bird; which, from the contraſt, appears to have fallen down directly into its mouth. If then, the common fame be true, that the *rattle-ſnake* [8], and other *ſerpents*, have a power of charming *birds*, and other animals, and bringing them down into their mouths; it may be preſumed, that we have here an action of this kind, of great antiquity, and very pertinently recorded.

II. *Of the known animals with names.*

The PINOKEPOC *or* reem.

II. Among thoſe animals, that are diſtinguiſhed by their names, and are likewiſe well known, we may give the firſt place to the PINOKEPOC [9]. Now as this is the only animal, that we are acquainted with, which is uſually armed with one horn [1] (for what is commonly called the *unicorn's horn* is not the horn of a *quadruped*, but

33. and li. 37. *Mic.* i. 8. together with תנין *Lam.* iv. 3. and תנות *Mal.* i. 3. are to be taken for *jackalls*. But תנינים *Gen.* i. 21. *Exod.* vii. 12. *Deut.* xxxii. 33. *Pſal.* lxxiv. 13. and cxlviii. 7. together with תנין *Ex.* vii. 9, 10 *Job* vii. 12. *Pſal.* xci. 13. *Iſ.* xxvii. 1. and li. 9. *Jer.* li. 34. and תנים *Ezek.* xxix. 3. and xxxii. 2. are to be rendred *dragons*, *ſerpents*, *whales*, *ſea-monſters*, or the like; according as they are ſpoken of ſuch creatures, either as they relate to the land or to the water.

8 "I am abundantly ſatisfied (*ſays the following author*) from many witneſſes, both "*Engliſh* and *Indian*, that a *rattle-ſnake* will charm ſquirrels and birds from a tree "into it's mouth." Vid. *Paul Dudley* Eſq. his *account of the rattle-ſnake*. *Philoſ. Tranſact.* N° 376. p. 292. Dr. *Mead on poiſons*, p. 82. Others imagine, that the *rattle-ſnake*, by ſome artifice or other, had before bitten them; and as the poiſon did not immediately operate, the ſquirrel or bird, in the ſurprize, might betake themſelves to ſome neighbouring tree, and afterwards fall down, to be ſeized upon by the *rattle-ſnake*; which, ſenſible of the mortal wound that had been given, was impatiently waiting and looking for them.

9 In *Bartoli's* drawings, which will be hereafter mentioned, the name is *PINOKEYCOC*; which, I preſume, muſt be a miſtake. According to a late account I had of this *pavement* from my worthy friend *Thomas Blackburne* eſq. jun. of *Warrington*, he acquaints me that it is PINOKEPΩC: as among the other names ΩANTEC is ΘΩANTEC: ENHYΔPIC is ENYΔPIC; and KPOKOΔEIΛOC ΠAPΔAΛIC is KPOKOΔIΛOΠAPΔAΛIC. The ingenious Dr. *Parſons*, F. R. S. (*Philoſ. Tranſ.* N° 470. has given us a moſt accurate figure, as well as a very curious diſſertation, upon the *rhinoceros*.

1 In Sir *Hans Sloane's* and Dr. *Mead's* curious collections, there are *ſpecimens* of two of theſe horns being placed one above the other, at a ſpan's diſtance; the one upon the ſnout, the other nearer the forehead; to a ſpecies of which kind the *geminum cornu* of *Martial* (*Epig.* xxiv. *De ſpectaculis*) might probably relate. The *Ethiopian rhinoceros*, which *Pauſanias* (*in Bœoticis*) calls the *Ethiopian bull*, was of this kind. Εἶδον ἤ κὴ ταύρους τοὺς τε Αἰθιοπικοὺς, οὓς ὅπη τῷ συμβεβεκότι ὀνομάζουσι Ῥινοκέρωτας, ὅτι σφίσιν ἐπ' ἄκρῳ τῇ ῥινὶ ἓν ἑκάστῳ κέρας ἢ ἄλλο ὑπὲρ αὐτὸ ὑ μέγα. Yet the *rhinoceros* upon the medals of *Domitian*, the ſame, we may ſuppoſe, that was exhibited at the *ſecular games* in his times, appears with one horn only upon the ſnout, as in thoſe which have been brought to us hither, at different times, from the *Eaſt Indies*.

of

of the *nervahl*, a *cetaceous fish*) our commentators have, for the most part, taken it for the רים *reem*. And indeed, in justification of this interpretation, the *rhinoceros*, from the very make and structure of its body, appears to be the strongest of *quadrupeds*, the *elephant* not excepted: so that in expressing the strength of *Israel*, *Numb.* xxiii. 22. it is justly compared to the strength of the *reem* or *rhinoceros*, or *unicorn*, as it is commonly translated. *Reem* then cannot be, as *Schultens* and others have interpreted it, the *oryx* or *bubalus*, or indeed any other *species* of the *clean quadrupeds*, which will by no means answer to this description of it.

We have nothing curious to offer with regard to the ΤΙΓΡΙC or the ΛΕΑΙΝΑ, with a cub sucking it: if we except the roundness of the spots in the former, which are unquestionably the distinguishing marks of the *panther*, and not of the *tiger*, as it is here called. *The* ΤΙΓΡΙC. *The* ΛΕΑΙΝΑ.

The ΛΙΓΞ is incorrectly given us for ΛΥΓΞ; the N in this name, and also in the CΦΙΝΓΙΑ, being put instead of the Γ; which however may shew how the Γ was pronounced before the letters Ξ and Γ. By the figure and attitude, it appears to be the same creature (L), which the *Ethiopians* are shooting at, in the upper part of the *pavement*. Now the *lynx* being generally received for the θὼς, or *lupus cervarius* of the ancients, it can bear no affinity at all with this creature; which is much better designed for the *wild-ass*, or *onager*, one of the noted animals of these countries. *The* ΛΙΓΞ. *The* onager.

The CAΥOC, by the addition of a P, will be CAΥPOC, *the lizard*; the figure agreeing, with propriety enough, to the name. The ENHΥΔPIC, in like manner, is no other than ENΥΔPIC, the H being redundant; and denotes the *lutra*, or *otter*, or, as it is otherwise called, *the dog of the river*. They are two in number, holding each of them a fish in their mouths; agreeably to the character of that *piscivorous* animal. This was likewise one of those *quadrupeds* that were accounted *sacred*[2] by the the *Egyptians*. *The* CAΥOC *or* CAΥPOC. *The* ENHΥΔPIC, *or* ENΥΔPIC.

The XOIPOΠOTAMΘΥ, by exchanging the Θ for an O, will be XOIPOΠOTAMOΥ, or the *river hog*. This is a new name indeed, though we can hardly be mistaken in the interpretation of it, as the animals here exhibited are exactly of that *species*. In Dr. *Mead's* curious collection of *Bartoli's Drawings*, we see the same groupe of animals, with the appellation of XOIPOΠIΘ¯IΛ annexed to it: and as this word seems to be related to, or a derivative from, XOIPOC and ΠIΘHKOC or ΠIΘHΞ, it should denote them to be *baboons*, *mantigers*, *orang-outangs*, or, according to the literal interpretation, *hog-* *The* XOIPOΠOTAMΘΥ *or* XOIPOΠOTAMOΥ.

[2] Γίνονται δὲ καὶ Ἐνύδριες ἐν τῷ ποταμῷ, τὰς ἱερὰς ἥγηνται εἶναι. *Herod. Eut.* p. 131.

monkeys,

monkeys, or *hog-baboons*. But, beſides the length and curled faſhion of their tails, the very ſhape and attitude of the animals themſelves, ſhew them to be much nearer related (as it has been already obſerved) to the *hog*, than to the *monkey* kind; and therefore ΧΟΙΡΟΠΟΤΑΜΟΥ is rather to be received.

The ΑΓΕΛΑΡΟΥ *or* ΑΙΛΟΥΡΟΥ.

The ΑΓΕΛΑΡΟΥ likewiſe, from the ſimilitude of the figure, ſhould have been written ΑΙΛΟΥΡΟΥ, i. e. *the cat*; which, being one of the ſacred animals of *Egypt*, could not well be denied a place in this collection.

III. *Of thoſe animals, whoſe names are better known than their deſcriptions.*

III. Though the names of ſome other of theſe animals are as well known in books of *natural hiſtory*, as thoſe already mentioned, yet the animals themſelves have not been ſo well deſcribed: they will require therefore ſome further illuſtration.

The ΚΡΟΚΟΔΕΙΛΟΣ ΠΑΡΔΑΛΙΣ *or* ſtellio.

The ΚΡΟΚΟΔΕΙΛΟΣ ΠΑΡΔΑΛΙΣ then, or the *ſpotted lizard* (as it may be interpreted) might be intended for the *ſtellio* of the ancients; or the *warral* (p. 178.) according to the preſent name.

The ΚΡΟΚΟΔΕΙΛΟΣ ΧΕΡΣΑΙΟΣ *or* ΣΚΙΓΚΟΣ.

The ΚΡΟΚΟΔΕΙΛΟΣ ΧΕΡΣΑΙΟΣ, or *land crocodile* (ſo called, in contradiſtinction, as it may be preſumed, to the *river-crocodile*, which was the ΚΡΟΚΟΔΕΙΛΟΣ, by way of eminence) is the ſame *ſpecies* of *lizard* with the ΣΚΙΓΚΟΣ [3]. However, the head is not here well expreſſed; being too round and large; whereas that of the *ſcinc's* is long, and rather more pointed, than in the other *ſpecies* of the *lizard* kind. *Egypt* has always abounded with the *ſcinc*; and, to this day, ſeveral boxes of them, dried and prepared, are ſhipped off, every year, for *Venice*, as an ingredient in their *theriaca*.

The ΟΝΟΚΕΝΤΑΥΡΑ.

The ΟΝΟΚΕΝΤΑΥΡΑ is much better delineated, than the κροκόδειλος χερσαῖος; and may be called *the female aſs-centaure*. *Ælian* [4] is very copious in deſcribing this imaginary creature; the only fictitious animal in this collection: which the LXX however have placed inſtead of אִיִּים or *the wild beaſts of the iſlands*, as we tranſlate it *Iſ.* xiii. 22. xxxiv. 14. *&c.*

The ΚΡΟΚΟΤΑΣ.

The ΚΡΟΚΟΤΑΣ, or *crocuta*, is a name as well known to the natural hiſtorians as the ΟΝΟΚΕΝΤΑΥΡΑ; though the animal itſelf has not been ſo well and ſo particularly deſcribed. *Ælian* (l. vii. c. 22.) acquaints us, that it *had the ſame art with the* hyæna [5], *of*

[3] Σκίγκος ὁ μὲν τίς ἐστιν Αἰγύπτιος, ὁ δὲ Ἰνδικὸς --- ἔστι δὲ κροκόδειλος χερσαῖος, ἰδιογνώμων &c. *Dioſc.* l. ii. cap. 71. *Raii Hiſt. animal.* p. 271.

[4] *Ælian. Hiſt. anim.* l. xvii. cap. 9. & l. vii. c. 22. *Plin.* l. viii. c. 21 & 30.

[5] This property (*Plin. Hiſt. nat.* l. viii. cap. 30.) is aſcribed to the *hyæna*, *viz.* Sermonem humanum inter paſtorum ſtabula aſſimulare, nominaque alicujus addiſcere, quem evocatum foras lacerat. — Hujus generis coitu leæna *Æthiopica* parit *crocutam*,

learning

learning the names of particular persons, and decoying them afterwards, by calling upon them by the same. But he gives us no characteristics, whereby the ΚΡΟΚΟΤΑϹ may be distinguished from other *quadrupeds*. We may supply the deficiency therefore from this figure, which is all over spotted. The head is rather long, like the *bear's*, than short and round, as in the *cat* kind. *Agatharcides* ascribes to it sharp claws and a fierce countenance [6]. The ears of it are small; the body is short and well-set; and appears to have either no tail at all, or else a very short one. These then are to be received as the characteristics of the κροκότας.

To this class we may join the ϹΦΙΝΓΙΑ, the same grammatical name with σφίγγες [7]. These have been commonly numbered among the imaginary beings, but appear here to be *cercopitheci*, or *monkeys*; as indeed some ancient authors [8] have described them. The prominence likewise, that is said to be in their breasts or nipples, may perhaps be authorized from the lowest of them, which has its limbs the most displayed; for those of the other are folded up and collected together, as the habit and custom is of that antic animal. *The* ϹΦΙΝΓΙΑ.

IV. Among such of these animals, whose names are either dubious or unknown, we may take notice of the ΑΠΡΟϹ; which, notwithstanding the affinity of it to the *Latin* word *aper*, yet has no relation at all to the *boar* kind. Excepting the spots, it agrees in shape, habit of body, and all other circumstances, with the ΚΡΟΚΟΤΑϹ: If we might presume that ΑΡΚΤΟϹ was the true reading in the *pavement*, the figure will answer, with propriety enough, to the *bear*, one of the noted animals of this country. IV. *Of the animals whose names are dubious or unknown.* *The* ΑΠΡΟϹ *or* ΑΡΚΤΟϹ.

The ΥΑΒΟΥϹ is another unknown name. The large *quadruped*, to which it belongs, has the exact shape and habit of the *camel*. The *The* ΥΑΒΟΥϹ, *or* camel.

similiter voces imitantem hominum pecorumque. *Idem ibid.* cap. 21. dicit *crocutas* velut ex cane & lupo conceptus. *Strab.* l. xvi. p. 553.

[6] Ἔστι μὲν ὀνομαζόμενος Κροκόττας ὡς ὁ ἐκ λύκου καὶ κυνὸς συνθέτον, ἀμφοῖν δὲ ἀγριώτερον, καὶ πολλῷ βαρύτερον, ἀπό τε τοῦ προσώπου καὶ τῶν ἄκρων ποδῶν. *Agath. de Mar. rubr.* p. 45. ed. Oxon.

[7] Αἱ σφίγγες, τὰ σφίγγια. *Salmas. Plin. Exercit. in Solinum.*

[8] Lyncas vulgo frequentes & *sphinges*, fusco pilo, *mammis* in pectore *geminis* Æthiopia generat. *Plin.* l. viii. c. 21. Inter simias habentur & *sphinges*, villosæ comis, mammis prominulis & profundis, dociles ad feritatis oblivionem. *Solin.* cap. 27. Αἱ σφίγγες, καὶ κυνοκέφαλοι καὶ κῆποι περιπέμπονται εἰς τὴν Ἀλεξάνδρειαν ἐκ τῆς Τρωγλοδυτικῆς καὶ τῆς Αἰθιοπίας. Εἰσὶ δὲ αἱ μὲν Σφίγγες ταῖς γραφομέναις παρόμοιαι. Πλὴν ὅτι πᾶσαι δασεῖαι, καὶ ταῖς ψυχαῖς ἥμεροι καὶ πρᾷοι· καὶ πανουργίας κοινωνοῦσι πλείστης, διδασκαλίας τῆς μεθοδευτικῆς ἐπὶ πόσον ἅπτονται· ὥστε τὴν εὐρυθμίαν ἐν πᾶσι θαυμάζειν. *Agatharcid. de Mare rubro*, p. 43. ed. Ox. *Spinturnicia* (i. e. *sphinges*) omni deformitate ridicula. *Amm. Marcell.* lib. xxii.

ears likewise are erect, with a large tuft of hair growing betwixt them, as is common, though not peculiar indeed, to this creature. The large bump too, which is usually placed upon the middle of the back, is here fixed nearer the shoulders: Yet, notwithstanding this mistake, ΥΑΒΟΥC may still be a derivative from ΥΒΟC, *the bump*, or *bunch*, one of the chief characteristics of the *camel*, and from whence it very properly received this name. The custom of carrying *treasures upon these bunches of camels*, is mentioned *Is.* xxx. 6.

The ΚΗΙΠΕΝ, *or* marmoset.

Below the ΥΑΒΟΥC is the ΚΗΙΠΕΝ, which is a beautiful little creature, with a shaggy neck, like the καλλίθριξ [9]; and shaped exactly like those *monkeys*, that are commonly called *marmosets*. The ΚΗΙΠΕΝ therefore may be the *Ethiopian monkey*, called by the *Hebrews* (קוף) *kouph*, and by the *Greeks* ΚΗΠΟΣ [1], ΚΗΦΟΣ, or ΚΕΙΠΟΣ, from whence the *Latin* name *cephus* [2]; with this difference only, that ΚΗΙΠΕΝ has here an *heteroclite* termination. For little regard, as we may perceive from the preceding names, has been paid, either to the *orthography*, the number, or any other grammatical accuracies.

No grammatical accuracies observed in these names.

The ΞΙΟΙΤ, *or* wolf.

At a little distance from the ΚΗΙΠΕΝ is the ΞΙΟΙΤ: and near this again are the ΩΑΝΤΕC; appellations probably of *Ethiopic* extraction. With regard to the ΞΙΟΙΤ, it has all the appearance of a very fierce and rapacious animal. It seems to be howling, with the mouth half open. The jaws are long, and well armed with teeth. There is no small probability therefore, that it was intended for the *wolf*, and consequently will be the same (by softening the letter ብ *by*) with አዝእብት *azybyte* or *'zijbt*, the *Ethiopic* name plural of the *lupus*, or *wolf*.

The ΩΑΝΤΕC, *or* civet cats.

We find the like analogy betwixt ΩΑΝΤΕC and the *Ethiopic* word አንከሰ *aankes* or *oanques*, as it may be differently pronounced. The ΩΑΝΤΕC then were (the *Ethiopian*) *civet cats* [3], as አንከሰ is interpreted by *Castel* and *Ludolfus*. For greater differences than these are found in the derivatives of most languages. And, considering the nature and quality of the *Greek* and *Ethiopic* alphabets, and of their

The great difference betwixt the Greek *and the* Ethiopic *alphabets.*

[9] Efferocior *cynocephalis* natura; sicut mitissima *satyris* & *sphingibus*. *Callitriches* toto pene aspectu differunt, barba est in facie, cauda late fusa priori parte. *Plin.* lib. viii. cap. 54.

[1] Κῆπος· ζῶον ὅμοιον πιθήκῳ. Κεῖπον δὲ Βαβυλώνιοι οἱ κατὰ Μέμφιν τιμῶσιν. ἔστι δ' ὁ κεῖπος τὸ μὲν πρόσωπον ἐοικῶς Σατύρῳ. τ' ἄλλα δὴ κυνὸς καὶ ἄρκτου μεταξύ. Γίνεται δ' ἐν Αἰθιοπίᾳ. *Strab.* l. xvii. p. 817. ed. *Almelov.*

[2] Pompeius Magnus misit ex Æthiopia, quas vocant *cephos*; quarum pedes posteriores pedibus humanis & cruribus; priores manibus fuere similes. *Plin. Nat. hist.* l. viii. c. 19.

[3] *Felis Æthiopica*, s. animal *zibethicum*. s. *hyæna odorifera*, s. *civetta*.

reſpective pronunciations; it cannot be expected, either that the ſame letters, or the ſame force or ſound of any one given letter, word, or appellation, ſhould be exactly conveyed from one of theſe languages into the other.

So much then with regard to the *animals* of this *pavement*. If *botany* is regarded, we have here the figures of the *palm-tree*; both of the common *ſpecies* (A) that grows up in one ſtem; and of the *doom* (B), or κυκιόφορον, that was forked. The ſtately uprightneſs of the *palm* is finely alluded to *Jer.* x. 5. We have the *muſa* likewiſe (C), which is remarkably diſtinguiſhed by large verdant leaves. The fruit of it is ſuppoſed, by ſome commentators, to be the *dudaim* or *mandrakes*, (p. 341.) as others have taken the leaves for thoſe, which our firſt parents uſed inſtead of aprons, or *girdles*, as it ſhould be rather rendred, *Gen.* iii. 7. *The* palm. *The* doom. *The* muſa.

The *lotus* (D), that extraordinary vegetable ſymbol in the *Egyptian* mythology, (p. 357.) is ſtill more frequent than the *palm-tree* and the *muſa*; and, as it is here repreſented, agrees in the rotundity of its leaf and roſaceous flower, with the *nymphæa aquatica*. *The* lotus.

The large ſpreading tree (E), that preſents itſelf ſo often to the eye, may be deſigned for the *ſycamine* or *ſycomore*, one of the common timber trees not only of *Egypt*, but alſo of the *H. land*[4]. The *mummy* cheſts, the ſacred boxes, the σκηνοδείγματα, the models of ſhips, and a variety of other curioſities, found in the *catacombs*, are all of them, as I have before obſerved, made out of this wood. And further, as the grain and texture of it is remarkably coarſe and ſpongy, it could not therefore ſtand in the leaſt competition (*Iſ.* ix. 10[5].) with the *cedar*, for beauty and ornament. The *ſycomore*, from budding very late in the ſpring, is called *arborum ſapientiſſima*: and, from having a larger and more extenſive root than moſt other trees, it is alluded to as the moſt difficult *to be plucked up*, Luke xvii. 6. The *mulberry-trees*, that are ſaid, *Pſalm* lxxviii. 48. *to have been deſtroyed by the froſt*, ſhould be rather the *ſycomore-tree*, שקמות as the word is. *The* ſycomore, Συκόμορος, ſ. Συκάμινος.

Above the *ſycomores*, within the precincts probably of *Æthiopia*, there is another large ſhady tree (F), diſtinguiſhed by two yellowiſh *The* caſſia fiſtula.

[4] Συκόμορον, ἔνιοι μὲν ἡ τῆτα Συκάμινον λέγουσι, καλεῖται δὲ ἡ ὁ ἀπ' αὐτῆς καρπὸς συκόμορον, ἀπὸ τοῦ ὄπωπον τὴν γεύσεως. *Dioſc.* lib. i. cap. 182. or *ſycamine* שקמים *ſicamum*. *Pſ.* lxxviii. 47. 1 *Kings* x. 27. 1 *Chron.* xxvii. 28. *Amos* vii. 14. *Luke* xvii. 6. xix. 4.

[5] *The ſycomores are cut down, but we will change them into cedars.*

clusters, as they seem to be, of flowers; and by the KHIIIEN, which is running upon one of the branches. This then may be the *cassia fistula* [6], whose flowers are of this colour, grow in this fashion, and yield a most delightful fragrancy.

The azedarach, *or* ailah.

The CΦINΓIA display themselves upon another large tree, of a less shady quality, and with boughs more open and diffused. These circumstances agree very well with the *azedarach* (not much different from אזרח *ezrach*, or the *bay-tree*, as we render it, *Psal.* xxxvii. 35.) another noted tree of these countries; whose commoner name is *ailah* or *eleah*; the same with the *Hebrew* אלה, the *oak*, the *elm*, the *lime*, *&c.* as it is differently rendred, *Josh.* xxiv. 21. *Is.* vi. 13. *Ez.* vi. 13. COLLECTAN. II. *Phytogr.* N° 31.

Reeds, viz. *the* calamus scriptorius, *&c.*

The banks of the *Nile* are every where adorned with several tufts and ranges of *reeds*, *flags*, and *bulrushes*. Among the reeds, the emblem of *Egypt* (2 *Kings* xviii. 21. *Ez.* xxix. 26.) we are to look for the *calamus scriptorius*, the קנה *(Is.* xliii. 24. *Jer.* vi. 20.) or *calamus aromaticus*, or *sweet calamus*, Ex. xxx. 23. and the *arundo saccharifera*. As most of these plants appear in spike or flower, they might thereby denote the latter end of the summer; the beginning of the autumnal season; or perhaps the particular time when *Alexander* made the conquest of *Egypt*. The clusters of *dates*, that hang down from one of the *palm trees*; the bunches likewise of *grapes*, that adorn the lower bower (ζ), may equally typify the same season. Neither should we leave the bower, thus occasionally mentioned, till we have admired the variety of *climbers*, that shelter it from the sun. Such are the *gourd* (the *kikaion* or [7] *kikoeon* (קיקיון) as it bids the

The gourd, *or* kikoeon; balsamines, *&c.*

[6] *Cassia fistula* ab *Arabibus* inventa, & a recentioribus Græcis, ut *Actuario* καστία μέλαινα nominatur. *Fabam Indicam* veterum, ut *Aristobuli*, *Valerius Cordus* credidit. *Siliquam Ægyptiam Theophrasti* hist. 18. nonnulli censent. *C. Bauh. Pin.* p. 403. Being originally an *Ethiopian* plant, it might not have fallen under the cognisance of *Theophrastus*, as it was not known in *Egypt* at that time.

[7] Some authors make the *kikaion* to be the same with the *Egyptian kik* or *kiki*, from whence was drawn *the oil of kiki*, mentioned by *Diodorus*, l. i. c. 34. This was the κρότων of the *Greeks*, the *elkaroa* of the *Arabians*; the same with the *ricinus* or *palma Christi*; which is a spongy quick-growing tree, well known in these parts (vid. *Ol. Clusii Hierobotanicon*, p. 273.) though the oil which is used at present, and perhaps has been, from time immemorial, for lamps and such like purposes, is expressed from hemp or rape seed, whereof they have annual crops: whereas the *ricinus* is infinitely rarer, and the fruit of it consequently could not supply the demands of this country. The *Egyptians* are said to be the inventers of lamps, before which they used torches of pine-wood. *Clem. Alex. Strom.* 1.

fairest

faireſt to be, in the hiſtory of the prophet *Jonas*) the *balſamines*, the climbing *apocynums*, *&c.* all which I have ſeen flouriſhing in *Egypt*, at the time of the year, with great beauty.

As to the *flags* and *bulruſhes* (G), they are often mentioned; particularly *Exod.* ii. 4. where we learn, that *the mother of Moſes, when ſhe could no longer hide him, took for him an ark of* bulruſhes [or *papyrus*, as גמא is frequently rendred) *and daubed it with ſlime and with pitch, and put the child therein, and laid it in the flags* (סוף *ſuph*, juncus) *by the river's brink. The veſſels of bulruſhes*, that are mentioned both in ſacred and profane hiſtory [8], were no other than larger fabrics of this kind: which, from the late introduction of plank, and ſtronger materials, are now laid aſide. *The* flags *or* papyrus. *The* veſſels *of* bulruſhes.

The ſhort, and, it muſt be confeſſed, imperfect and conjectural account, that is here given, of this very inſtructive piece of antiquity, will, I hope, excite ſome curious perſon to treat and conſider it with greater erudition, and more copious annotations. The ſubject very well deſerves it; as all *Egypt*, and no ſmall portion of *Æthiopia*, are here moſt beautifully depicted in *miniature*; and elegantly contracted into one view. And it will add very much to the credit and authority of the repreſentations here given us, that notwithſtanding the artiſt had ſo much room for indulging his fancy and imagination; yet, unleſs it be the ONOKENTAΥPA, we are entertained with no other object that appears to be trifling, extravagant, or improbable. Neither will there be much occaſion to apologize, even for this figure: inaſmueh as, ſeveral centuries after this *pavement* was finiſhed, *Ælian* himſelf (lib. xvii. cap. 3.) that great ſearcher into nature, ſeems to give way to the common fame, and to believe the exiſtence of ſuch a creature. *The further explication of this* pavement *recommended to the curious.*

[8] *Iſ.* xviii. 2. *Pliny* (lib. vi. cap. 22.) takes notice of the *naves papyraceas, armamentaque Nili*; and (lib. xiii. cap. 11.) he obſerves, *ex ipſa quidem papyro navigia texunt. Herodotus* and *Diodorus Siculus* have recorded the ſame. And among the poets, *Lucan:*

Conſeritur *bibula* Memphitis cymba *papyro.*

CHAP.

CHAP. III.

The Natural History of Arabia; *particularly of* Arabia Petræa, Mount Sinai, *&c. and of the* Ostrich.

The barrenness of the land of Edom.

IF we leave *Palæstine* and *Egypt* behind us, and pursue our physical observations into *the land of Edom*, we shall be presented with a variety of prospects, quite different from those we have lately met with in *the land of Canaan*, or in *the field of Zoan*. For we cannot here be entertained with *pastures cloathed with flocks*; or with *valleys standing thick with corn*; or with *brooks of waters, or fountains or depths, that spring out of the valleys and hills*, Deut. viii. 7. Here is *no place of seed, or of figs, or of vines, or pomegranates*, Numb. xx. 5. but the whole is *an evil place*, a lonesome, desolate wilderness, no otherwise diversified than by plains covered with sand, and by mountains made up of naked rocks and precipices. *I hated Esau* (says the prophet, *Mal.* i. 3.) *and laid his mountains and his heritage waste for the dragons of the wilderness.*

Edom *little refreshed with rain.*

Neither is this country ever, unless sometimes at the *equinoxes*, refreshed with rain; but the few hardy vegetables, which it produces, are stunted by a perpetual drought; and the nourishment which the dews contribute to them in the night, is sufficiently impaired by the powerful heat of the sun in the day. The intenseness of the cold and heat, at these respective times, very emphatically accounts for the provision of Providence in spreading out for the *Israelites, a cloud to be a covering by day, and fire (like a harmless sun*, Wisd. xviii. 3.) *to give both light* and heat *in the night season*, Psal. cv. 39.

The atmosphere *usually serene.*

But to be more particular: When I travelled in this country, during the months of *September* and *October* (1721) the *atmosphere* was perfectly clear and serene all the way from *Kairo* to *Corondel*; but from thence to *mount Sinai*, the tops of the mountains, which lay on each side of us in the midland road, would be now and then capp'd with clouds, and sometimes continue so for the whole day.

A great storm at mount Sinai.

This disposition of the air was succeeded, soon after, by a violent tempest; when the whole heavens were loaded with clouds, which discharged themselves, almost during a whole night, in extraordinary thundrings, lightnings, and rain. But these *phænomena* are not frequent, rarely falling out, as the monks informed me (and who have reason to remember them) above once in two or three years.

And

And indeed, to make a ſhort digreſſion, it is very fortunate for the *fraternity* of *St. Catharine's* that they happen ſo ſeldom. For as the torrents conſequent thereupon waſh down an immenſe quantity of ſtone and gravel from the mountains, the large capacious ciſtern below, which receives its water from the *convent*, and liberally refreſhes therewith the *Arabs* and their cattle, is uſually filled up thereby. This the *monks* are immediately obliged to cleanſe, as it happened when I was there, ten or a dozen of them being let down every day, and drawn up again at night, till the work was finiſhed. And, to ſhew the ingratitude of theſe their rapacious neighbours, for whoſe conveniency all this labour had been beſtowed, I muſt mention likewiſe, that after theſe poor lay-brothers had done all to their ſatisfaction, they would not ſuffer them to return, without paying each of them a *ſultanie*, and a quantity of proviſions beſides, for the permiſſion.

The quality of the winds.

Except at ſuch extraordinary conjunctures, as were juſt now taken notice of, there is the ſame uniform courſe of weather throughout the whole year; the ſky being uſually clear, and the winds blowing briſkly in the day and ceaſing in the night. Of theſe, the *ſouth winds* are the gentleſt; though thoſe in other directions are the moſt frequent; which, by blowing over a vaſt tract of theſe deſerts, and ſkimming away the ſandy ſurface along with them, leave expoſed ſeveral putrified trunks and branches of trees; make continual encroachments upon the ſea, and occaſion no leſs alterations in the ſurface of the continent. For to theſe violent winds we may attribute the many billows and mountains of ſand, which we every where meet with; the ſand ſupplying the place of water; or, as this *phænomenon* is beautifully deſcribed by *P. Mela*, lib. i. c. 8. *Auſter arenas, quaſi maria, agens ſiccis ſævit fluctibus.* For the ſame cauſe likewiſe not only the harbour of *Suez* is intirely filled up, but the very channel of the ſea, which extends itſelf two or three miles further to the northward (as it once may be ſuppoſed to have reached even as far as *Adjeroute*, or *Heroopolis*) is now dry at *half ebb*; though the tide riſes here near ſix feet.

The mountains of ſand.

Where any part of theſe deſerts is ſandy and level, the *horizon* is as fit for aſtronomical obſervations as the ſea itſelf; and *ſyrtidos arva*, an expreſſion of *Lucan's*, may receive no ſmall illuſtration from this *phænomenon)* and appears, at a ſmall diſtance, to be no leſs a collection of water [1]. It was likewiſe no leſs ſurpriſing to ſee in what an

The plain or level part of the deſert appears to be a collection of water.

[1] The like obſervation is taken notice of by *Diodorus Siculus* in his account of *Africa*, l. iii. p. 128. Dr. *Hyde* alſo, in his annotations on *Peritſol's Itinerary*, p. 15.

extra-

extraordinary manner every object appeared to be magnified [2] within it; insomuch that a shrub might be taken for a tree, and a flock of birds, the *achbobbas* are the most frequent, for a *caravan* of camels. This seeming collection of water always advances about a quarter of a mile before us; whilst the intermediate space is in one continued glow, occasioned by the quivering undulating motion of that quick succession of vapours and exhalations, which are extracted by the powerful influence of the sun.

Carcases rarely putrify in these deserts.

The same violent heat may be the reason likewise, why the carcases of camels and other creatures, which lie exposed in these deserts, are quickly drained of that moisture, which would otherwise dispose them to putrefaction; and, being hereby put into a state of preservation [3], not much inferior to what is communicated by spices and bandages, they will continue a number of years without mouldring away. To the same cause also, succeeded afterwards by the coldness of the night, we may attribute the plentiful dews, and those thick offensive mists, one or other of which we had, every night, too sensible a proof of. The dews particularly (as we had the heavens only for our covering) would frequently wet us to the skin: but no sooner was the sun risen, and the *atmosphere* a little heated, than the mists were quickly dispersed, and the copious moisture, which the dews communicated to the sands, would be intirely evaporated.

Fountains very rarely met with.

Rills, or fountains, or ponds, or wells of water are so rarely met with, that we may very well account for the strife and contention [4] there was formerly about the latter. In [5] the *midland road* betwixt

deduces the name of *Barca* and *Libya* from this *phænomenon*. Et quidem (ut denominationis causam & rationem exquiramus) dictum nomen הברקה *splendorem* seu *splendentem regionem* notat, cum ea regio radiis solaribus tam copiose colluſtretur, ut reflexum ab arenis lumen adeo intense fulgens, a longinquo spectantibus (ad instar corporis solaris) aquarum speciem referat; & hicce arenarum splendor & radiatio Arabibus dicitur سراب *serâb*, i. e. *aquæ superficies*, seu *superficialis aquarum species*— Hinc etiam nominis Λιβύη ratio peti potest; cum לביא contractum sit pro להביא a להב *flamma*, *a fulvescentibus arenis* ardore pene inflammatis.

[2] Vid. p. 333. [3] See the account of the preserved bodies at *Saibah*, in the beginning of the dissertation concerning *Ras Sem*, p. 155.

[4] *And Abraham reproved Abimelech, because of a well of water, which Abimelech's servants had violently taken away*, Gen. xxi. 25. *And the herdsmen of Gerar did strive with Isaac's herdsmen, saying, The water is ours: and he called the name of the well Eseck* (contention) *because they strove with him*, Gen. xxvi. 20.

[5] *Anak's* memory likewise might be well transmitted to posterity *for finding in this wilderness* some *source* or collection *of water*, till then undiscovered, as הימם *(Gen.* xxxvi. 24.) perhaps may be better rendred than *finding the mules*, which, in all pro-

Kairo and *Mount Sinai*. I do not remember to have heard or tasted of more than five such sources, which were, all of them, either brackish or sulphureous. Yet there are great amends made for this disagreeableness in taste, by the wholsome quality of the waters, which provoke an appetite, and are besides remarkably lenitive and diuretic. And to this it may be owing, that few persons are acquainted with sickness, during their travels through these lonesome, inhospitable, and sultry deserts.

The quality of the waters of Ain el Mousa.

The fountains called *Ain el Mousa* are lukewarm and sulphureous, boiling up three or four inches above the surface, as if they were agitated below by some violent heat. The fountain, two leagues to the westward of *Suez*, where there are several large troughs for the convenience of watering cattle, is brackish; and therefore the inhabitants of that place are obliged to drink of the *Ain el Mousa*, which lies about the same distance, on the other side of the *Red-sea*. The exchange indeed is not extraordinary, yet it is preferred in being more wholesome. The waters of *Hammam Pharaoune*, near *Corondel*, are excessively hot, and send off no small quantity of a sour, vitriolic steam: our conductors affirming, that an egg might be boiled hard in one minute, and that it would be macerated by them in the next. But I had no opportunity of trying the experiment; the *baths* or *hot* waters themselves lying a great way within the rocks, with a narrow entrance leading unto them. The water of *Hammam Mousa*, among the wells of *Elim*, is moderately warm and sulphureous: but that of the wells themselves, which lie at a little distance, is brackish and of a crude digestion, creating perhaps those scrophulous tumours, that sallowness of complexion, and those obstructions in the bowels, which are too much complained of by the inhabitants of *Tor*, who drink them.

Of the fountain near Suez.

Of the Hammam Pharaoune.

Of the Hammam Mousa.

The situation of these fountains.

The brackish waters of *Elim*, and the sulphureous waters of *Ain el Mousa*, are situated, upon level ground, at a great distance from any range of mountains. Those particularly of *Ain el Mousa* cherish and refresh the highest part of an extensive plain. The throwing of themselves up therefore in *jet d'eaux* is a circumstance the more extraordinary; and perhaps is no otherwise to be accounted for, than by deducing their origin from the *great abyss*. But the fountain within the convent of *St. Catharine*; that of the *Forty martyrs*, in the plain of *Rephidim*; and another, which we find in the valley of *Hebron*,

bability, those earlier ages were not acquainted with. The first mention that is made of *mules* (פרדים) is in the time of *David*, asses having served them to ride upon before.

near the half way from thence to the deſert of *Sin*, are ſources of excellent water; which our palates found to be the more delicious, as they had, for fifteen days before, been acquainted with what was intirely diſagreeable. The fountain of *St. Catharine*, after it has ſupplied the demands of the convent, is received without into a large baſon; which, running over, forms a little rill. This was the *water* (Ex. xxxii. 20.) or *the brook that deſcended out of the mount*, into which *the golden calf was caſt after it was ground to powder.*

Great quantities of ſelenites,

Of the fixed and permanent foſſils, there are ſeveral here which are not common in other places. Thus the *ſelenites* is obſerved to ſhoot itſelf, ſometimes for the ſpace of thirty or forty yards together, in a great variety of ſhapes and colours. If this is a ſure characteriſtic, as ſome naturaliſts maintain, of a *lead-mine* lying below it, *Arabia Petræa* muſt be well impregnated with this mineral. A beautiful kind of *cawk*, the *pſeudo-fluor* of the *naturaliſts*, gives likewiſe a wonderful glaring to the rocks, and frequently diſtinguiſhes itſelf, in large expanſions, like the *ſelenites*. The *marble*, which is ſometimes called *Thebaic*, from being dug in the mountains of that diſtrict; ſometimes *granite*, from the number of little grains whereof it conſiſts, is much more common than the *pſeudo-fluor* and *ſelenites*. It appears to be a *congeries* of *cawky nodules*, of different ſhapes and ſizes, beautifully united together: which, from the likeneſs they bear to a compoſition of mortar and gravel, might occaſion ſeveral ingenious travellers to imagine *Pompey's pillar*, the *obeliſks* at *Heliopolis*, *Alexandria*, and *Rome*, with other the like extraordinary lumps of this ſort of marble, to be factitious, and produced by fuſion. That kind of it, which I ſaw in the neighbourhood of *Mount Sinai*, and in the midland road from thence to *Corondel*, is generally of a light grey colour, with little black ſpots interſperſed; though, in ſome places I have ſeen it much blacker, and in others of a reddiſh complexion, like the marble of *Syene*, called by *Pliny* (l. xxxvi. c. 8.) *pyrrhopœcilon*, i. e. *diſtinguiſhed with a variety of red ſpots*; of which the *obeliſks* were uſually made. Sometimes alſo the conſtituent particles were ſo ſmall and well-compacted, that the contexture was not inferior either to the *ophites* or *ſerpentine marble*, or to *porphyry*: And out of this kind, probably, *were hewn the two tables of teſtimony*; *tables of ſtone*, as they are called, *written with the finger of God*, *Exod.* xxxi. 18. xxxiv. 1, *&c.* It has been already obſerved, (p. 317.) that what is called the *rock of flint*, Deut. viii. 15. may be more properly named, with ſeveral other ſorts of *granite* marble here to be met with, *the rock of amethyſt*, from their reddiſh or purple colour and complexion.

pſeudo-fluor,

and granite *marble.*

That

That part of *Mount Sinai*, which lies to the weſtward of the plain of *Rephidim*, and is called the mountain of *St. Catharine*, conſiſts of a hard reddiſh marble, like *porphyry*; but is diſtinguiſhed from it, by the repreſentations of little trees and buſhes, which are diſperſed all over it. The *naturaliſts* call this ſort of marble *embuſcatum*, or *buſhy marble*[6]; and, for the ſame reaſon, *Buxtorf*[7] derives the name of *Sinai*, from the buſh or *rubus* that was figured in the ſtones of it. It ſeems to be hitherto undecided, to what *ſpecies* of plants this buſh is to be referred; yet if theſe impreſſed figures are to inſtruct us, we may very juſtly rank it among the *tamariſks*; which, with the *acacia*, are the moſt common and flouriſhing trees of theſe deſerts. I have ſeen ſome branches of this *foſſil tamariſk*, if we may ſo call it, though it appears rather to be of a *mineral nature*, that were near half an inch in diameter. The conſtituent matter or ſubſtance of theſe foſſils is not unlike the powder of *lead-ore*, though of leſs ſolidity; crumbling into duſt by touching or rubbing it with our fingers.

The ſeveral *ſtrata* in theſe and moſt of the other mountains, which I have ſeen in *Arabia*, are generally ſo many kinds of marble, cemented as it were together, by thin ſparry ſutures of various textures and colours. There are likewiſe a great many remarkable breaches in theſe *ſtrata*; ſome of which lie twenty or thirty yards aſunder, the diviſions on each ſide correſponding, or, as we may call it, tallying exactly with each other, and leaving a deep valley in the midſt. Theſe are probably the effects of ſome violent earthquakes. *The* ſtrata *cloſely joined.*

Betwixt *Kairo* and *Suez* we meet with an infinite number of *flints* and *pebbles*, all of them ſuperior to the *Florentine marble*, and frequently equal to the *Moca ſtone*, in the variety of their figures and *The beautiful* pebbles *of theſe deſerts.*

[6] *Embuſcatum* ex monte *Sinai* [*Hieroſolymitano* male additur] depromptum; quod albicans eſt [*noſtrum rubeſcit*] ad flavedinem tendens; & quocunque modo ſecetur aut dividatur, in eo arbuſta & frutices, colore nigricante, ſubtiliter a Natura depicti apparent. Si ſupra ignem ponatur, brevi evaneſcit pictura &c. Ego Anglice **Boſcage** ſive **Buſhy-marble of Hieruſalem** nominarem. *Charlt. Exercit. de foſſil.* p. 19.

[7] סִינַי *Sinai*, montis nomen, a סְנֶה *rubus, quod lapides inventi in eo figuratum in ſe habuerint rubum*, ut ſcribunt commentatores in librum *More nebhuchim*, p. 1. cap. 66. adeo ut etiam in fragmentis lapidum iſtorum, figuræ rubi apparuerint, quod ſe *ephodeus*, alter iſtorum commentatorum, vidiſſe ſcribit. *Buxtorf in voce* סְנֶה. *Horeb* חֹרֵב, the other name, by which this mountain is likewiſe known in Scripture, ſeems very juſtly to expreſs *the barren deſolate condition* of it, from חָרַב, *ſiccatus, vaſtatus, deſolatus; in ſolitudinem redactus fuit*, &c.

Foſſil ſhells are rare at Mount Sinai.

repreſentations[8]. But *foſſil ſhells*, and other the like teſtimonies of the *Deluge*, are very rare in the mountains near *Sinai*, the original *menſtruum* perhaps of theſe marbles being too corroſive to preſerve them. Yet at *Corondel*, where the rocks approach nearer to our *free-ſtone*, I found a few *chamæ* and *pectunculi*, and a curious *echinus*, of the *diſcoide* kind, figured among the *foſſils*, N° 40. The ruins of the ſmall village at *Ain el Mouſa*, and the ſeveral conveyances we have there for water, are all of them full of *foſſil ſhells*. The old walls of *Suez*, and the remains that are left us of its harbour, are likewiſe of the ſame materials: all of them probably from the ſame quarry. Betwixt *Suez* and *Kairo* likewiſe, and all over the mountains of *Libya*, near *Egypt*, every little riſing ground and hillock diſcovers great quantities of the *echini*, as well as of the *bivalve* and *turbinated ſhells*; moſt of which exactly correſpond with their reſpective families, ſtill preſerved in the *Red-ſea*. Betwixt *Suez* and *Kairo* we meet with thoſe petrified trunks and branches of trees, that have been already ſpoken of, p. 161, 2.

The walls of Suez, *&c. of foſſil ſhells.*

Very few plants *in* Arabia.

There is no great variety of *plants* in theſe deſerts. Thoſe *acacias*[9], *azarolas*, *tamariſks*, *oleanders*, *laureolas*, *apocynums*, and the few other *Arabian* plants that are enumerated in the *Phytographia*, as they are generally indebted to ſome barren rocks, or to the ſandy plains, for their ſupport; ſo they are indebted to the nightly dews, for their nouriſhment; there being no ſoil, properly ſo called, in theſe parts of *Arabia*. The *monks* indeed of *Sinai*, in a long proceſs of time, have covered over near four acres of theſe naked rocks, with the dung and ſweepings of their convent; which produce as good *cabbage*, *roots*, *ſalad*, and all kinds of *pot-herbs*, as any ſoil and climate whatſoever. They have likewiſe raiſed *olive*, *plum*, *almond*, *apple* and *pear* trees, not only in great numbers but of excellent kinds. The *pears* particularly, which are in ſhape like the *Windſor*, are in ſuch eſteem at *Kairo*, that there is a preſent of them ſent every ſeaſon to the *baſhaw*, and perſons of the firſt quality. Neither are

The garden of Mount Sinai *very fruitful.*

[8] *Proſp. Alpinus* (*Hiſt. nat. Ægypt.* cap. vi. p. 147.) calls theſe pebbles *ſilices ſylviferæ, in quibus lapidibus ſylvæ, herbarum, fruticum, &c. pictæ imagines cernuntur.*

[9] The *acacia* being by much the largeſt, and the moſt common tree of theſe deſerts, as it might likewiſe have been of the plains of *Shittim* over againſt *Jericho*, from whence it took its name, we have ſome reaſon to conjecture, that the *ſhittim*-wood, whereof the ſeveral utenſils, *&c.* of the *tabernacle*, *&c.* Exod. xxv. 10. 13. 23, *&c.* were made, was the wood of the *acacia*. This tree abounds with flowers, of a globular figure and of an excellent ſmell; which may further induce us to take it for the ſame with the *ſhittah* tree, which in *Iſa.* xli. 19. is joined with the myrtle and other ſweet-ſmelling plants.

the

the *grapes* inferior in ſize and flavour to any whatſoever. For we have a ſufficient demonſtration in what this little garden produces, how far an indefatigable induſtry can prevail over nature; and that ſeveral places are capable of culture and improvement, which were intended by nature to be barren, and which the lazy and ſlothful would have always ſuffered to be ſo.

The corals, &c. of the Red-ſea.

Yet the deficiencies in the ſeveral claſſes of the *land-plants* are amply made up in the *marine-botany*[1]: no place perhaps affording ſo great a variety as the *port of Tor*. In rowing gently over it, whilſt the ſurface of the ſea was calm, ſuch a diverſity of *madrepores*, *fucuſes*, and other marine vegetables preſented themſelves to the eye, that we could not forbear taking them, as *Pliny*[2] had done before us, for *a foreſt under water*. The branched *madrepores*, particularly, contributed very much to authorize the compariſon; for we paſſed over ſeveral of them that were eight or ten feet high, growing ſometimes pyramidical, like the *cypreſs*; at other times they had their branches more open and diffuſed, like the *oak*; not to ſpeak of others, which, like the *creeping plants*, ſpread themſelves over the bottom of the ſea.

The branched madrepores.

The fungi, &c.

To theſe *ſpecies*, which are branched, we may join the *fungi*, the *brain-ſtones*, the *aſtroite-madrepores*, with other *coralline* bodies, which frequently grow into maſſes of an extraordinary ſize; and ſerve, not only for lime, but alſo for the chief materials in the buildings of *Tor*. The *fungus*, properly ſo called, is always joined to the rock, by a ſeemingly ſmall root, being the reverſe of the *land-muſhroom*, in having its gills placed upwards. This and the *brain-ſtone* are obſerved to preſerve conſtantly a certain ſpecific form: the other *coralline* bodies alſo have each of them their different ſtar-like figures or *aſteriſks* impreſſed upon them, whereby they likewiſe may be particularly diſtinguiſhed. But theſe only regard their ſurfaces; for, having not the leaſt appearances of roots, as the *fungus* and the *brain-ſtone* have, they are to be conſidered as certain rude maſſes only of this *coralline* ſubſtance; which, at the ſeveral periods of their growth, mould themſelves into the figures of the rocks, ſhells, and other *matrices*, that lie within the reach of their vegetation.

Of the vegetation of the madrepores.

All theſe *ſpecies* are covered over with a thin glutinous ſubſtance, or *pellicule*, as I ſhall call it; which is more thick and ſpongy near and upon the *aſteriſks*, than in any other part. For, if we may be allowed to offer a few conjectures concerning the method of their

[1] See a catalogue of theſe *corals* in the COLLECTANEA, Num. II.

[2] *Plin.* l. xiii. cap. 25. *Chryſoſt.* ex *Strab. Geogr.* l. xvi. p. 213. ed. Hudſ.

growth

growth and vegetation, it is probable, that the firſt offices of it are performed from theſe *aſteriſks*; eſpecially if thoſe ſetts of little fibres, which belong to them, ſhould prove to be, as in all appearance they are, ſo many little roots. Now theſe little roots, if carefully attended to, while the *madrepores* are under water, may be obſerved to wave and extend themſelves like the little filaments of mint, when it is preſerved in glaſſes; or like the mouths or ſuckers of the *ſea-ſtar*, or like thoſe of the ſmall floating *polypus* (p. 192.) But the very moment they are expoſed to the air, they become inviſible, by a power which they have at that time of contracting themſelves, and retiring within the cavities or furrows of their reſpective *aſteriſks*.

The vegetation of coral, &c.

In the true *coral* and *lithophyta* (to hint ſomething alſo of their hiſtory) the method is a little different. For theſe are not marked with *aſteriſks* like the *madrepores*, but have their little roots iſſuing out of certain ſmall protuberances, that are plentifully diſperſed all over their *pellicules*; ſerving, as the *aſteriſks* do in the other claſs, for ſo many valves or caſes, to defend and ſhut in their reſpective little roots. We may take notice further, that theſe protuberances are generally full of a milky, clammy juice (perhaps juſt ſecreted by the little roots) which in a ſmall time coagulates; then becomes like bees-wax, in colour and conſiſtence; and afterwards, as I conjecture, is aſſimilated into the ſubſtance of the *coral* or *lithophyton* itſelf.

The different method of vegetation betwixt the land plants and theſe coralline *bodies.*

Nature having not allowed theſe marine plants one large root, as it has done to the terreſtrial; how wiſely is that mechaniſm ſupplied by a number of little ones, which are diſtributed, in ſo juſt a proportion, all over them, that they are lodged thicker upon the branches, where the vegetation is principally carried on, than in the trunk, where it is more at a ſtand; the trunk being often found naked, and ſeldom increaſes in the ſame proportion with the branches? The *terreſtrial plants* could not ſubſiſt without an *apparatus* of great and extenſive roots; becauſe they are not only to be thereby ſupported againſt the violence of the wind; but their food alſo is to be fetched at a great diſtance. Whereas the marine vegetables, as they are more ſecurely placed, ſo they lie within a nearer reach of their food, growing as it were in the midſt of plenty; and therefore an *apparatus* of the former kind muſt have been unneceſſary, either to nouriſh or ſupport them. Though indeed, according to the late wonderful diſcoveries with relation to the *polypus*, all that I have ſaid of theſe little roots, valves, and aſteriſks, may be ſome time or other found to belong to animals of that claſs; and conſequently that *corals*, *madrepores*,

drepores, and *lithophyta*, are to be no longer reckoned in the vegetable, but in the animal kingdom.

The *fucuſes* mentioned ſeem to have given the name of סוּף *ſuph*, or *ſouph*, to this *gulph* or *tongue* (*Iſ.* xi. 15.) *of the Egyptian ſea*; which is otherwiſe called the *ſea of Edom*, and improperly, the *Red-ſea*, by taking *Edom*[3] for an appellative. The word סוּף is alſo rendred *flags* by our tranſlators (*Exod.* ii. 8. and *Iſai.* xix. 6.) and *juncus* or *juncetum* by *Buxtorf*. I no where obſerved any *ſpecies* of the *flag kind*; but there are ſeveral thickets of *arundinaceous plants* at ſome ſmall diſtances from the *Red-ſea*, though never, as far as I perceived, either upon the immediate banks, or growing directly out of it. We have little reaſon therefore to imagine, that this ſea ſhould receive a name from a production, which does not properly belong to it. It has been thought more proper therefore to tranſlate יַם סוּף *yam ſuph*, *The ſea of weeds*, or *The weedy ſea*[4], from the variety of *algæ* and *fuci*, and perhaps the *madrepores* and *coralline* ſubſtances juſt now deſcribed, which grow within its channel, and, at *low water* particularly, after ſtrong tides, winds, and currents, are left, in great quantities, upon the ſea-ſhore. *The* Red-ſea *called the* Weedy-ſea *in Scripture.*

Though the marine *botany* is very entertaining, yet there is an additional pleaſure in obſerving the great variety of *urchins*, *ſtars*, and *ſhells*, which preſent themſelves at the ſame time. The firſt are moſt of them beautiful and uncommon. We find ſome that are flat and unarmed, of the *pentaphylloid* kind: others that are oval, or elſe globular, very elegantly ſtudded with little knobbs, which ſupport ſo many ſpires or prickles. This ſort of armour is ſometimes thicker than a ſwan's quill; ſmooth and pointed in ſome, but blunt, rough, and knobbed, like the *lapides Judaici*, in others. *Other marine productions, as* Urchins.

The moſt curious *ſtar* which I ſaw, made, with its five rays (or fingers as we call them) a circumference of nine inches in diameter. It was convex above, guarded all over with knobbs, like ſome of the *echini*; but the under ſide was flat and ſmoother, having a ſlit or furrow, capable of expanding or contracting itſelf, which run the, Sea-ſtars.

[3] Vid. *Suid.* in voce Ἐρυθρά. *Nic. Fuller. Miſc. ſacra*, lib. iv. c. 20. *Prid. Connect.* vol. i. p. 15.

[4] However, it ſhould not be omitted, that *Lipenius* furniſheth us with a very ingenious conjecture in ſuppoſing this, in contradiſtinction perhaps to the יַם הַגָּדוֹל *Great ſea*, or *Mediterranean*, to be the ſame with *a ſea that is circumſcribed by* (viſible) *bounds on both ſides*. *Dicitur* mare Suph *Hebraice ex rad.* סוּף *deficere, finire, unde eſt nomen* סוּף finis ſeu extremitas, *Eccleſ.* iii. 11. *Hinc* mare Suph *eſt, vi verbi*, mare finitum, limitatum, terminis & littoribus circumſeptum. Vid. *Lipenii Navigat. Salomonis Ophirit. illuſtrat.* Witt. 1660. p. 286.

whole

whole length of each finger. For this part of the fiſh, when in the water, always lies open, and diſplays an infinite number of ſmall filaments, not unlike in ſhape to (what we commonly call) the horns of ſnails. Theſe are ſo many mouths, as in the circular *polypus* above mentioned, that are continually ſearching after nouriſhment; and as the *coralline* bodies, if they really are ſuch and not animals, have been obſerved to be all root, the *ſtar* may be ſaid to be all mouth; each of the little filaments performing that office. By applying the hand to them, we quickly perceive the faculty they have of ſucking like ſo many cupping-glaſſes; but no ſooner is the fiſh removed into the air, than they let go their holds, and the furrow, from whence they proceeded, which was before expanded, is now immediately ſhut up.

Shells. There would be no end of enumerating the great diverſity of ſhells, which adorn the banks, or lie in the ſhallows of the *Red-ſea*; for no further had we an opportunity to ſearch it. The *concha Veneris* is ſeen in a great variety of ſpots and ſizes; whilſt the *turbinated* and *bivalve ſhells* are not only common and in a great luxuriancy of ſhapes and colours, but are alſo ſometimes ſo exceedingly capacious, that there have been found ſome *buccina* which were a foot and a half long, whilſt ſome of the *bivalve* ſhells were as much or more in diameter. I have already obſerved, that the *port of Tor* has greatly contributed to the buildings of the adjacent village. But this is not the only conveniency and advantage which the inhabitants receive from it: inaſmuch as they are almoſt intirely nouriſhed and ſuſtained by that plenty of excellent fiſh which it affords them. Neither is this all; for the very furniture and utenſils of their houſes are all fetched from the ſame plentiful magazine; the *nautilus* ſerving them inſtead of a cup, the *buccinum* inſtead of a jar, and the *concha imbricata* inſtead of a diſh or platter to ſerve up their food.

Few ſpecies of animals in this part of Arabia. The ſhort ſtay which our conductors allowed us at *Tor* and *Suez*, would not give me an opportunity of making any further obſervations either in the *botany* or *zoology* of the *Red-ſea*. As we were likewiſe frequently obliged, for coolneſs, to travel in the night, ſeveral *foſſils*, *plants*, and *animals*, beſides other curioſities, muſt have undoubtedly eſcaped my notice. Yet I ſhould not omit obſerving, that we were now and then offended with ſeveral little ſwarms of *locuſts* and *hornets*, both of them of an unuſual ſize, though of the ordinary colours. *Vipers*, eſpecially in the wilderneſs of *Sin*, which might very properly be called *the inheritance of dragons*, were very dangerous and troubleſome; not only our *camels*, but the *Arabs* who attended them, running every moment the riſque of being bitten.

But

But the *lizard* kind, in their variety of ſpotted coverings, afforded us an amuſment far more innocent and diverting. Near *Kairo* there are ſeveral flocks of the *ach bobba* [5], the *percnopterus*, or *oripelargus* [6], which, like the *ravens* about *London*, feed upon the carrion and naſtineſs, that is thrown without the city. This the *Arabs* call (رخمة) *rachamah*, the ſame with רחם *Lev.* xi. 18. and רחמה *Deut.* xiv. 17. which is rendred, in both places, the *geer eagle*, in our tranſlation. The ſame bird likewiſe might be the *Egyptian hawk*, which *Strabo* deſcribes (contrary to the uſual qualities of birds of that claſs) to be of no great fierceneſs. *Doves* are known to frequent thoſe mountainous diſtricts where there is water; as the *oſtrich*, which will be hereafter ſpoken of, delights chiefly in the plains; being the grand ranger and *ubiquitarian* of the deſerts, from the *Atlantic* ocean to the very utmoſt ſkirts of *Arabia*, and perhaps far beyond it to the eaſt. *Hares*, of the ſame white colour with thoſe of the *Alps* and other cold countries have been ſeen by ſome travellers; the *badger* too, from the frequent mention that is made of their ſkins (*Exod.* xxvi. 14, *&c.*) muſt have been likewiſe an inhabitant, though the *antilope* was the only *quadruped*, as the *dove* and the *achbobba* were the only *birds* which fell under my obſervation. For perhaps there are no places in the whole world that abound leſs with living creatures than theſe deſerts; and indeed, where has Nature made leſs proviſion for their ſuſtenance? The *quails* muſt have been fed, as well as brought, by a miracle, if they had continued alive with the *Iſraelites*: and might they not, without the like miracle, have died of thirſt in the wilderneſs? We cannot therefore ſufficiently admire the great care and wiſdom of God, in providing the *camel* for the traffic and commerce of theſe, and ſuch like deſolate countries. For, if theſe ſerviceable creatures were not able to ſubſiſt ſeveral days without water; or if they required a quantity of nouriſhment in proportion to their bulk; the travelling in theſe deſerts would be either cumberſome and expenſive, or altogether impracticable.

The ach bobba, *or* percnopterus.

Doves.

Oſtrich.

Hares.

Badger.

Antilope.

Animals have little to ſubſiſt upon.

But ſomething ſtill would be wanting to the *natural hiſtory* of theſe deſerts, without a more particular deſcription, as I have promiſed, of the *oſtrich*, called all over theſe countries *naamah*. For there are ſeveral curious circumſtances, in the account we are to give of it,

Of the oſtrich, *as deſcribed in the book of* Job.

[5] *Ach bobba*, in the *Turkiſh* language, ſignifies *white father*; a name given it partly out of the reverence they have for it, partly from the colour of its plumage: though, in the other reſpect it differs little from the *ſtork*, being black in ſeveral places. It is as big as a large capon, and exactly like the figure which *Geſner*, lib. iii. *De avib.* p. 176. hath given us of it.

[6] Vid. *Geſn.* ut ſupra. *Ariſt. Hiſt. anim.* l. ix. cap. 32. *Plin.* lib. x. cap. 3.

which few perſons could ever have an opportunity of being acquainted with: ſome of them likewiſe will be of no ſmall conſequence in illuſtrating the more difficult part of the deſcription, which is given of it in the following verſes of the xxxixth chapter of the book of *Job*.

Ver. 13. *Gaveſt thou* **the goodly wings unto the peacock, or wings and feathers unto the oſtrich?** Which may be rendred thus, from the original, *The wing of the oſtrich is (quivering*, or) *expanded*[7]; *the very feathers and plumage of the ſtork.*

14. *Which* **leaveth**[8] *(depoſites* or *truſts)* **her eggs in the earth, and warmeth them** (viz. *by incubation*[9]) **in** *(the ſand)* **duſt.**

15. **And forgetteth that the foot may cruſh them, or that the wild beaſt may break them.**

16. **She is hardened againſt her young ones, as though** *they were* **not hers; her labour is in vain without fear.**

17. **Becauſe God hath deprived her of wiſdom, neither hath he imparted to her underſtanding.**

18. **What time ſhe lifteth her ſelf up on high** (or, as it may otherwiſe be tranſlated) *when ſhe raiſeth herſelf up to run away*[1], (*viz.* from her purſuers) **ſhe ſcorneth** (or *laughs* at) **the horſe and his rider.**

[7] *Expanded* or *quivering*. נעלסה *naiel-oſoh*, ala *quæ exultare facta eſt*. Radix *êlas* proprie eſt σφαδάζειν, vibrantem motum edere, irrequieta jactatione agitari. Vid. p. 277. *Lib. Jobi*, Schultens ed. vir. ql. R. Grey, S. T. P.

[8] Which *leaveth*, תעזב *tazob*, *mandat*. Exquiſite locatum illud *tazob*, relinquit, quod duplici poteſtate nunc auctum; prima deponendi, prout onus ponitur & traditur alteri portandum. Altera vis infert *derelictionem*, quam hic omittendam non eſſe, ſequentia ſatis arguunt; etiamſi iſta deſertio non tam ſtricte ſit ſumenda, ut ſtatim atque ova depoſuerit, ea derelinquat; nam ſat longum ſæpe tempus incubat, quia & excludit haud raro ova; ſed tamen tam trepida & ſtupida eſt natura, ut ad minimum ſtrepitum fugiat, ovaque ſua deſerat, quæ deinceps præ vecordia invenire non valet. *Id.* p. 278.

[9] Several *natural hiſtorians*, and, among the reſt, Mr. *Ray* (probably by underſtanding *tazob* as of a total dereliction) have ſuppoſed the eggs of the *oſtrich* to be hatched intirely by the ſun (quæ in arena condita, ſolis duntaxat calore foveri dicuntur. *Raii Synopſ. av.* p. 36.) whereas the original word תחמם *tehhammem*, ſignifies actively that *ſhe heateth them*, viz. by incubation.

[1] *Quo tempore in altum ſe ad curſum incitat.* במרום *bammorom*, *in altum*, vel ad ſtaturam referre licet, vel ad edita clivorum, collium, &c. Arridet magis prius, quaſi proceritas ſtaturæ commendaretur, quum e nido ſuo exſurgens, accedentibus venatoribus, in altum alas erigit, vel ipſa potius in altum attollitur, mole corporis & colli ſpatio, ſupra fidem eminens. *Schult.* ut ſupra, p. 279.

In commenting therefore upon theſe texts, it may be obſerved, that when the *oſtrich* is full grown, the neck, particularly of the male, which before was almoſt naked, is now very beautifully covered with red feathers. The plumage likewiſe upon the ſhoulders, the back, and ſome parts of the wings, from being hitherto of a dark greyiſh colour, becomes now as black as jet; whilſt the reſt of the feathers retain an exquiſite whiteneſs. *They are*, as deſcribed at ver. 13. *the very feathers and plumage of the ſtork*; *i. e.* they conſiſt of ſuch black and white feathers as the *ſtork*, called from thence πέλαργος, is known to have. But the belly, the thighs, and the breaſt, do not partake of this covering; being uſually naked, and, when touched, are of the ſame warmth as the fleſh of *quadrupeds*. *The feathers, black and white, like thoſe of the ſtork, or* πέλαργος.

Under the joint of the great pinion, and ſometimes upon the leſſer, there is a ſtrong pointed excreſcence, like a cock's ſpur; with which it is ſaid to prick and ſtimulate itſelf; and thereby acquire freſh ſtrength and vigour whenever it is purſued. But nature ſeems rather to have intended, that, in order to prevent the ſuffocating effects of too great a *plethora*, a loſs of blood ſhould be conſequent thereupon, eſpecially as the *oſtrich* appears to be of a hot conſtitution, with lungs always confined, and conſequently liable to be preternaturally inflamed upon theſe occaſions. *Hard pointed excreſcences under her pinions.*

When theſe birds are ſurprized, by coming ſuddenly upon them, whilſt they are feeding in ſome valley, or behind ſome rocky or ſandy eminence in the deſerts, they will not ſtay to be curiouſly viewed and examined. Neither are the *Arabs* ever dextrous enough to overtake them, even when they are mounted upon their *jinſe*, or horſes, as they are called of family [a]. *They, when they raiſe themſelves up for flight* (ver. 18.) *laugh at the horſe and his rider.* They afford him an opportunity only of admiring, at a diſtance, the extraordinary agility and the ſtatelineſs likewiſe of their motions, the richneſs of their plumage, and the great propriety there was of aſcribing to them, (ver. 13.) *an expanded, quivering wing.* Nothing certainly can be more beautiful and entertaining than ſuch a ſight! the wings, by their repeated, though unwearied vibrations, equally ſerving them for ſails and oars; whilſt their feet, no leſs aſſiſting in conveying them out of ſight, are no leſs inſenſible of fatigue. *The ſwiftneſs and agility of the* oſtrich.

[a] Theſe horſes are deſcended from ſuch as were concerned in the *hagyra*, or *flight*, which *Mahomet*, together with *Omar*, *Abubecker*, &c. made from *Mecca* to *Medina*. There is as exact an account taken and preſerved of their pedigrees, as there is of the families of kings and princes in *Europe*.

The ostrich lays from thirty to fifty eggs.

By the repeated accounts which I have had from my conductors, as well as from *Arabs* of different places, I have been informed, that the *ostrich* lays from thirty to fifty eggs. *Ælian*[3] mentions more than eighty; but I never heard of so large a number. The first egg is deposited in the centre; the rest are placed, as conveniently as possible, round about it. In this manner it it said to *lay*, deposit, or trust (ver. 14.) *her eggs in the earth, and to warm them in the sand, and forgetteth* (as they are not placed like those of some other birds, upon trees, or in the clefts of rocks, *&c.) that the foot* (of the traveller) *may crush them, or that the wild beast may break them.*

Some of the eggs serve for food to the young ones.

Yet notwithstanding the ample provision which is hereby made for a numerous offspring, scarce one quarter of these eggs are ever supposed to be hatcht: and of those that are, no small share of the young ones may perish with hunger, from being left too early, by their dams, to shift for themselves. For in these, the most barren and desolate recesses of the *Sahara*, where the *ostrich* chooses to make her nest, it would not be enough to lay eggs and hatch them, unless some proper food was near at hand, and already prepared for their nourishment. And accordingly, we are not to consider this large collection of eggs, as if they were all intended for a brood: they are, the greatest part of them, reserved for food[4]; which the dam breaks and disposes of, according to the number and the cravings of her young ones.

The ostrich not tender of her young ones.

But yet, for all this, a very little share of that στοργὴ or natural affection, which so strongly exerts itself in most other creatures, is observable in the *ostrich*. For, upon the least distant noise or trivial occasion, she forsakes her eggs or her young ones; to which perhaps she never returns; or if she does, it may be too late, either to restore life to the one, or to preserve the lives of the other. Agreeably to this account, the *Arabs* meet sometimes with whole nests of these eggs, undisturbed; some of which are sweet and good; others are addle and corrupted; others, again, have their young ones of different growths, according to the time, it may be presumed, they have been forsaken by the dam. They oftner meet a few of the little ones, no bigger than well-grown pullets, half starved; straggling and moaning about, like so many distressed orphans, for their mother. And in this manner the *ostrich* may be said (ver. 16.) *to*

[3] *Hist. animal.* lib. xiv. c. 7. [4] Vid. *Ælian. Hist. animal.* lib. iv. c. 37. *Phile in Iambis. Boch. Hieroz.* par. post. l. ii. c. 17.

be

be hardened againſt her young ones, as though they were not hers; her labour (in hatching and attending them ſo far) *being in vain, without fear*, or the leaſt concern of what becomes of them afterwards. This want of affection is alſo recorded *Lam.* iv. 3. *The daughter of my people*, ſays the prophet, *is cruel, like the oſtriches in the wilderneſs.*

The oſtrich indiſcreet in the choice of food.

Neither is this the only reproach that may be due to the *oſtrich*; ſhe is likewiſe inconſiderate and fooliſh, in her private capacity; particularly in the choice of food, which is frequently highly detrimental and pernicious to it: for ſhe ſwallows every thing greedily and indiſcriminately; whether it be pieces of rags, leather, wood, ſtone, or iron. When I was at *Oran*, I ſaw one of theſe birds ſwallow, without any ſeeming uneaſineſs or inconveniency, ſeveral leaden bullets, as they were thrown upon the floor, ſcorching hot from the mould: the inward coats of the *æſophagus* and *ſtomach* being probably better ſtocked with glands and juices, than in other animals with ſhorter necks. They are particularly fond of their own excrement, which they greedily eat up, as ſoon as it is voided. No leſs fond are they of the dung of hens and other poultry. It ſeems as if their *optic* as well as *olfactory* nerves were leſs adequate and conducive to their ſafety and preſervation, than in other creatures. The *Divine Providence in this*, no leſs than in other reſpects, (ver. 17.) *having deprived them of wiſdom, neither hath it imparted to them underſtanding.*

The great want of food in the deſerts.

Thoſe parts of the *Sahara* which theſe birds chiefly frequent, are deſtitute of all manner of food and herbage; except it be ſome few tufts of coarſe graſs; or elſe a few other ſolitary plants, of the *laureola*, *apocynum*, and ſome other kinds; each of which is equally deſtitute of nouriſhment; and in the *Pſalmiſt's* phraſe (cxxix. 6.) *even withereth, afore it be plucked up.* Yet theſe herbs, notwithſtanding this dryneſs and want of moiſture in their temperature, will ſometimes have both their leaves and their ſtalks ſtudded all over with a great variety of *land ſnails*; which may afford them ſome little refreſhment. It is very probable likewiſe, that they may ſometimes ſeize upon *lizards*, *ſerpents*, together with *inſects* and *reptiles* of various kinds. Yet ſtill, conſidering the great voracity and ſize of this *camel-bird*, it is wonderful, not only how the little ones, after they are weaned from the proviſions I have mentioned, ſhould be brought up and nouriſhed, but even how thoſe of fuller growth and much better qualified to look out for themſelves, are able to ſubſiſt.

Their organs of digeſtion.

Their organs of digeſtion, and particularly the gizzards (which, by their ſtrong friction, will wear away even iron itſelf) ſhew them

them indeed to be *granivorous*; but yet, they have ſcarce ever an opportunity to exerciſe them, in this way, unleſs when they chance to ſtray (which is very ſeldom) towards thoſe parts of the country which are ſown and cultivated. For theſe, as they are much frequented by the *Arabs*, at the ſeveral ſeaſons of grazing, plowing, and gathering in the harveſt; ſo they are little viſited by, as indeed they would be an improper abode for this ſhy, timorous bird; *a lover* (φιλέρημος) *of the deſerts*. This laſt circumſtance, in the behaviour of the *oſtrich*, is frequently alluded to in the H. Scriptures; particularly *Iſai.* xiii. 21. and xxxiv. 13. and xliii. 20. *Jer.* l. 39. where the word (יענה *jaanah*) inſtead of being rendred the *oſtrich*, as it is rightly put in the margin, is called the *owl*; a word uſed likewiſe inſtead of *jaanah*, or the *oſtrich*, *Levit.* xi. 16. and *Deut.* xiv. 15.

The oſtrich *a lover of the deſerts.*

Some particular actions of the oſtrich.

Whilſt I was abroad, I had ſeveral opportunities of amuſing myſelf with the actions and behaviour of the *oſtrich*. It was very diverting to obſerve, with what dexterity and *equipoiſe* of body, it would play and friſk about, on all occaſions. In the heat of the day particularly, it would ſtrut along the ſunny ſide of the houſe, with great majeſty. It would be perpetually fanning and priding itſelf with its *quivering-expanded wings*; and ſeem, at every turn, to admire and be in love with its ſhadow. Even at other times, whether walking about or reſting itſelf upon the ground, the wings would continue theſe fanning-vibrating motions, as if they were deſigned to mitigate and aſſuage that extraordinary heat, wherewith their bodies ſeem to be naturally affected.

The oſtrich *very miſchievous.*

Notwithſtanding theſe *birds* appear tame and tractable to ſuch perſons of the family as were more known and familiar to them, yet they were often very rude and fierce to ſtrangers, eſpecially the poorer ſort, whom they would not only endeavour to puſh down, by running furiouſly upon them; but would not ceaſe to peck at them violently with their bills, and to ſtrike at them with their feet; whereby they were frequently very miſchievous. For the inward claw, or hoof rather as we may call it, of this *avis biſulca*, being exceedingly ſtrong pointed and angular, I once ſaw an unfortunate perſon, who had his belly ripped open by one of theſe ſtroaks.

The noiſe or voice of the oſtrich.

Whilſt they are engaged in theſe combats and aſſaults, they ſometimes make a fierce angry and hiſſing noiſe, with their throats inflated and their mouths open; at other times, when leſs reſiſtance is made, they have a chuckling or cackling voice, as in the poultry-kind;

kind; and thereby ſeem to rejoice and laugh as it were at the timorouſneſs of their adverſary. But during the loneſome part of the night (as if their organs of voice had then attained a quite different tone) they often made a very doleful and hideous noiſe; which would ſometimes be like the roaring of a *lion*; at other times it would bear a nearer reſemblance to the hoarſer voices of other *quadrupeds*; particularly of the *bull* and the *ox*. I have often heard them groan, as if they were in the greateſt agonies; an action beautifully alluded to, by the prophet *Micah* (i. 8.) where it is ſaid, *I will make a mourning like the jaanah*, or *oſtrich*. *Jaanah* therefore, and (רנים) *rinonem*, the names by which the *oſtrich* is known in the H. Scriptures, may very properly be deduced from (ענה) *onah* and (רנן) *ronan*, words, which the *lexicographi* explain, by *exclamare*, or *clamare fortiter*. For the noiſe made by the *oſtrich*, being loud and ſonorous, *exclamare*, or *clamare fortiter*, may, with propriety enough, be attributed to it; eſpecially as thoſe words do not ſeem to denote[s] any certain or determined mode of voice or ſound, peculiar to any one particular *ſpecies* of animals; but ſuch as may be applicable to them all, to *birds* as well as to *quadrupeds* and other creatures.

The Hebrew *names of the* oſtrich *explained.*

[s] Vid. *Ælian. Hiſt. anim.* lib. v. cap. 51. & lib. vi. cap. 19.

THE

THE AUTHOR, having written his copy, in a hand which left ſeveral letters ambiguous, eſpecially in names of places, ſome ERRATA have eſcaped the preſs, which the reader will, in general, ſee corrected in the INDEX, but is deſired to correct the following here.

P. 6. note, l. 1. *for* רוס in ſome of the copies, *read* רוס
9. in marg. for *Herpidileni* r. *Herpiditani*.
17. l. 18. for *Gawle* r. *Gewle*.
18. l. 23. for *Breek* r. *Breſk*.
24. l. 18. for *Zair* r. *Zeir*.
27. l. 10. for *Fuddal* r. *Fuddah*.
60. l. antep. for *Lanctant.* r. *Lactant.*
l. 7. after *eminere* a comma inſtead of a full point.
85. l. antep. after *mœrorem* add a colon.
88. not. [6], l. 3. for *conſtant* r. *conſtat*.
109. note l. 6. for *intrarre* r. *intrare*.
119. l. 31. for *Gelma* r. *Gilma*.
125. ſide note, for *Shekkah* r. *Shekkah*.
142. not. l. antep. in ſome copies, for *perfugi* r. *pertuſi*.
155. ſect. vi. l. 3. for *Darha* r. *Darna*.
307. l. antep. of the text, for *Ex.* xxxiii. 9. r. *Exod.* xv. 23. 27.
310. l. 16. for *Exod.* xiv. 19. r. xiv. 9.
324. l. 21. for *Numb.* xiii. *r.* xxxiii.
365. l. ult. of text and note, for *Meſphrean — Meſphrees* r. *Meſtrean — Meſtres*, according to *P. Hardouin.*
416. l. penult. r. ὀξυτερὸς θὴρ.
l. ult. — *Oppian. Cyneg.* lib. ii.

The following CORRECTIONS are ſubmitted to the judgment of the reader.

P. 37. l. 2. for *Saldis* r. *Saldæ*.
115. ſide note, for VICO AVGVSTI r. VICVS AVGVSTI.
116. l. 16. for *aquis regiis* r. *aquæ regiæ*.
128. l. 16. for *aquas Tacapitanas* r. *aquæ Tacapitanæ*.
In which paſſages, and elſewhere, the Author has, from the *Itinerary*, uſed the oblique caſe inſtead of the nominative, which is uſually preſerved invariably, when we write in *Engliſh*.
P. 139. note, for *the eleventh of L. Septimius Severus* r. *the tenth of Commodus*, for in that year A. U. C. Var. 942. and A. D. 189. coincide.
P. 206. l. 12. at *ancient fabrics* add the following note, which the Author, in tranſpoſing his text, ſeems to have forgotten; ſc. *Ex ſabulone, et calce, et favilla.* Vitruv. Arch. l. vii. c. 4. Plin. N. H.ª l. xxxvi. c. 25.

COLLECTANEA:

OR, A

COLLECTION

OF SUCH

PAPERS

AS SERVE TO

ILLUSTRATE

SOME OF THE FOREGOING

OBSERVATIONS.

CONTENTS.

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VII. *The ſeveral Stations of the* Mahometan *pilgrims, in their journey to* Mecca. Obſ. p. 321.

VIII. *Meſure de la grande pyramide de Memphis, par le* Pere Siccard [1].

IX. *Remarques ſur le Natron, par le même* [2].

X. *The Method of making Sal Armoniac* [3].

XI. *An account of the weather at* Alexandria [4].

XII. *Nummi nonnulli ab auctore in* Africa *collecti.*

1. Theſe meaſures, taken by *Pere Sicard*, were given me by Dr. *Mead*, and are intended to illuſtrate Not. 2. p. 374.

2. Vid. *Memoires des Meſſions*, &c. Vol. vii. p. 64.

3. The Rev. Dr. *Liſle*, Fellow of *Magdalen* College, *Oxford*, favoured me with this account.

4. This ſhort journal I copied out of Mr. *Greaves's* pocket-book, that is depoſited in the *Savil* ſtudy, and ſerves to prove what regards the Weather, *Obſ. p.* 377.

COLLECTANEA.

I.

Specimen Phytographiæ Africanæ.

1. ABSINTHIUM Santonicum Judaicum C. B. P. 139. *Sheah* Arabum. *Copioſe creſcit in Arabia et in deſertis Numidiæ.*

2. Acacia vera J. B. I. 429. *Cum unica fere arbor ſit Arabiæ Petrææ, quæ conficiendis aſſeribus inſervire poſſit, veriſimile videtur eſſe* Shittim *S. SS.*

3. Acetoſa Ægyptia, roſeo ſeminis involucro, folio lacero *Lippi.*

4. Acetoſa minor, lobis multifidis Bocc. Muſ.

5. Alchimilla Linariæ folio, calyce florum albo I. R. H. 509.

6. Alchimilla Linariæ folio, floribus et vaſculis in foliorum alis ſeſſilibus. *His notis differt a præcedenti ſpecie, quæ flores fert verſus ramulorum ſummitates, longioribus pediculis hærentes.*

7. Alhenna Arabum. *Frutex eſt floribus parvis, tetrapetalis, candidis, racemoſis, ſtaminibus octo, binatim, in petalorum intervallis, naſcentibus, et e calyce quadrifido exeuntibus, foliis myrtiformibus conjugatis, fructu ſicco, quadriloculari, rarius triloculari, ſeminibus, Acetoſæ inſtar, angulatis,* Liguſtrum Ægyptiacum latifolium C. B. P. 476. Cyprus Græcorum, Alcanna vel Henne Arabum, nunc Græcis Schenna, Rauwolf. et Lug. Append. Cyprus Plinii ſive Alcanna Bell. Ep. 4. ad Cluſ.

8. Alkekengi fructu parvo, verticillato I. R. H. 151.

9. Alkekengi fruteſcens, foliis rotundis, arcte ſibi invicem incumbentibus, floribus albis, calycibus apertioribus.

10. Alſine aquatica, Portulacæ folio hirſuto.

11. Alſine maritima, ſupina, foliis Chamæſyces I. R. H. App. 665. Franca maritima, quadrifolia, annua, ſupina, Chamæſyces folio et facie, flore ex albo purpuraſcente Michel. Nov. Gen. 23. *Flos in quinque petalla dividitur ad tubulum cohærentia; baſi denuo petala ſeparantur et arcte amplectuntur fructum oblongum, pentagonum, monangium, plurimis ſeminibus fœtum. Calyx longus, ſtriatus, quinquefidus eſt. Flores arcte geniculis ramulorum adnaſcuntur.*

12. Althæa humilis, repens, foliis Malvæ vulgares, flore rubro.

13. Alyſſon foliis lanceolatis, confertis, argenteis, floſculis albis.

14. Amaranthus ſpicatus, Siculus, radice perenni Bocc. Rar. 16.

15. Anagyris fœtida C. B. P. 391. I. R. H. 647.

16. Apium procumbens, craſſiore folio.

17. Apocynum erectum, incanum, latifolium, Malabaricum, floribus ex albo, ſuave-purpuraſcentibus Par. Bat. 28. Boerh. Ind. Alt. 313. *Copioſe creſcit in vallibus prope montem Sinai.*

18. Apocynum fruteſcens, folio ſubrotundo, minore, ſiliquis ſtrictiſſimis.

19. Ariſtolochia Cretica, ſcandens, altiſſima, Piſtolochiæ foliis Cor. 8. Ariſtolochia clematitis ſerpens C. B. P. 307.

20. Aſparagus ſive Corruda, ſpinis biuncialibus, binis.

21. Aſplenium ſive Ceterach J. B. III. 749.

22. After conyzoides, foliis anguſtis, crenatis.

23. Aſteriſcus perennis, foliis longis, anguſtis.

24. Aſteriſcus annuus trianthophorus, *Craſſas* Arabibus dictus. *Folia Chamæmeli. Calyx e ſquamis tenuibus, albo virentibus,*

conſtat. Semifiſculi ſinuati ſunt: Crenas laterales longiores, mediam breviorem habet. Suaviter olet.

25. Aſtragaloides Luſitanica I.R.H. 399. Aſtragalus Bœticus Cluſ. H. CCXXXIII. *Foole el Halouſe* (ſ. Faba Apri) Arabum.

26. Aſtragalus Africanus luteus odoratus Bot. Monſp. Aſtragalus perennis foliis hirſutis, caule recto aphyllo, flore ochroleuco, odoratiſſimo, H. Ox. II. 203. *Caroube el Maizah* (ſ. Siliqua Caprarum) Arabum.

27. Aſtragalus tenuifolius, flore ſulphureo, ſiliquis tenuiter recurvis.

28. Atriplex maritima, Hiſpanica, fruteſcens et procumbens I. R. H. 505. Hort. Elth. 46. fig. 46.

29. Atriplex maritima pumila, Arabica, foliis, villoſis, ſubrotundis. *Folia unguis equini figura.*

30. Atriplex olida, maritima, pumila, procumbens.

31. Azedarach Dod. Pempt. 848. I. R. H. 616. *Eleah* Arabum.

32. Balſamita Chryſanthemi ſegetum folio, diſco amplo.

33. Borrago floribus albis, foliis longis, anguſtis.

34. Bulbocaſtanum tenuiter inciſo folio Luſitanium Vir. Luſ. I. R. H. 307.

35. Bulbocodium crocifolium, flore parvo, violaceo I. R. H. Cor. 50. Syſiſynchium Theophraſti Col. Ec. I. 328.

36. Burſa Paſtoris hirſuti, Erucæ flore, nervo folii prominente. *Folia oblonga, ſerrata, caulem amplectentia. Siliquæ hirſutæ, interdum ex adverſo poſitæ, brevibus pediculis in ſpicam digeſtæ, Burſæ Paſtoris figura, ſed majores et altius ſinuatæ. Septum medium Geranii ſeminis inſtar exporrectum.*

37. Cakile maritima, anguſtiore folio Cor. 49.

38. Calcitrapa flore ſulphureo, procumbens, caule non alato. Jacea Cichorii folio, flore luteo, capite ſpinoſo Bocc. Rar. 15. Jacea orientalis ſpinoſa, folio Eryſimi, flore luteo Boerh. Ind. Alt. 141. *In junioribus capitulis, ſpinæ ſuperiores reliquis longiores ſunt, et caſtanei coloris.*

39. Calcitrapa laciniata, multiflora, minimo flore, albicante Comm. Ac. R. Sc. Ann. 1718. n. 165. Carduus orientalis Calcitrapæ folio, flore minimo Cor. 31. Jacea minor, &c. Pluk. Alm. 192. Tab. 39. f. 4.

40. Calcitrapoides Sphærocephalos, Erucæ folio, Comm. Ac. R. Sc. Ann. 1718. p. 168. n. 8. Jacea Tingitana, centauroides, &c. Pluk. Alm. 191. Tab. 38. f. 5.

41. Calthoides foliis oblongis, cæſiis, craſſis. *Calycem habet ſimplicem, non ſquamoſum, in quinque aut plures latas lacinias diviſum. Semina pappoſa ſunt et ovata. Rami in bumum incumbunt.*

42. Campanula rotundifolia, hirſuta, ſaxatilis, folio molli Bocc. App. ad Muſ.

43. Campanula hirſuta, Ocymi folio; caulem ambiente, flore pendulo Bocc. Rar. 83. I. R. H. 112.

44. Cannacorus latifolius, vulgaris I. R. H. 367.

45. Capparis Arabica, fructu ovi magnitudine, ſemine piperis inſtar acri Bellon. Obſ. l. ii. cap. 60. *Noſtra tricubitalis eſt. Folia habet glauca, craſſa, ſucculenta, rotunda, uncialia. Fructus, quem vidi, pollicis fuit magnitudine, oblongus, cucumeris formâ, quem Arabes appellant* Felſel Jibbel, *i. e.* Piper montanum. *Copioſe creſcit in via ad montem Sinai.*

46. Carlina flore purpureo rubente, patulo I. R. H. 500. Comm. Ac. R. Sc. Ann. 1718. p. 173. n. 4.

47. Carlina acaulos, flore ſpecioſo, purpureo, non radiato, radice gummifera, ſucco albo et rubro. Succo albo et rubro venenato. Chamæleon albus, ſive Ἰξία Dioſcor. l. iii. c. 10. et l. vi. c. 21. Hujus radix *Addad* dicitur. Vid. Leo. Deſcript. Afr. l. ix. cap. penult.

48. Caſſia fiſtula Alexandrina C.B.P. 403.

49. Caucalis Myrrhidis folio, flore et fructu parvo.

50. Cedrus folio Cupreſſi, major, fructu flaveſcente C. B. P. 487.

51. Centaurum majus laciniatum, Africanum, H. R. Par. App. I. R. H. 444. Rhaponticoides lutea, altiſſima, laciniata, capite magno, Comm. Ac. R. Sc. Ann. 1718. p. 180. n. 30.

52. Centaurium majus incanum, humile, capite Pini, I. R. H. 449. Rhaponticum humile, capite magno Strobili, Comm. Ac. R. Sc. Ann. 1718. p. 176. n. 3.

53. Chamæ-

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3. Acetosa &c.

24. Asteriscus &c.

29. Atriplex &c.

72. Conyza &c.

59. Chondrilla &c.

60. Chrysosplenij facie &c.

74.

73. Cotyledon palustris, Sedi folio, floribus rubris, longioribus.

36. Bursa Pastoris hirsuta. Erucæ flore, nervo folij prominente.

53. Chamædryfolia tomentoſa, Maſcatenſis Pluk. Alm. p. 97. Tab. 275. f. 6. *In Numidia vidi ſine flore. Folia digitis adhærebant, Lappæ capitulorum inſtar. Calyx hexaphyllus. Semina oblonga, punctata, angulata, goſſypio obvoluta.*

54. Chamæleon Alpinus, Sonchi ſpinoſo, lucido folio, radice nigra, alato caule Bocc. Rar. 2. 148. Tab. 28. & 105. Carduus Cirſioides nitido glauco folio, capitulo ſingulari, Comm. Ac. R. Sc. Ann. 1718. n. 9.

55. Chamæmelum montanum, incanum Abſinthioides, Italicum Barr. Obſ. 1111. Ic. 457. Comm. Ac. R. Sc. Ann. 1720. p. 318. n. 14. Leucanthemum Plinii Anguill. 181. *Variat noſtrum calyce villoſo, rufeſcente, cum Italici calyx nigricet.*

56. Chamæmelum ſpecioſo flore, radice longa, fervida. Pyrethrum *vulgo, et veteribus Arabibus* Guntuſs *dicitur. Hujus radicis magna quantitas Conſtantinopolim et Kairum tranſmittitur, et Saccharo condita in doloribus pectoris et dentium comeditur. Floris radius amplus eſt, ſubtus purpureus. Diſcus magnus, luteus, ad ſeminum maturitatem protuberans, ſquamis rigidis ſtipatus.*

57. Chamæmelum Luſitanicum latifolium ſive Coronopi folio Breyn. Cent. I. 149. f. 74. Comm. Ac. R. Sc. Ann. 1720. p. 318. n. 9. Pellis pumila crenata, Agerati æmula, crenis bicornibus, aſperiuſculis Pluk. Alm. 65. Tab. 17. f. 4.

58. Chamæriphes ſeu Palma humilis, ſpinoſa, folio flabelliformi J. B. III. 37. *Doom* Arabum. *Ad altitudinem vidi ſeptem aut octo pedum, ramis quotannis e ſtipite avulſis.*

59. Chondrilla minima, repens, Aſplenii foliolis piloſis.

60. Chryſoſplenii foliis Planta aquatica, flore flavo, pentapetalo. *Habitu eſt hirſuto, conglomerata, Cuſcutæ inſtar. Flores longis pediculis annexi ſunt. Petala non fimbriata. Fructus mitræ epiſcopalis formâ. Calyx integer arcte fructum amplectitur.*

61. Cinara acaulos, Tunetana, *Tafga* dicta, magno flore, ſuaviter olente, anguſtis Cinerariæ foliis, non ſpinoſis Till. H. Piſ. p. 41. F. 1. Tab. 20. *Radix optimi ſaporis eſt, et ab incolis comeditur.*

62. Cinara ſylveſtris, non ſpinoſa, flore cæruleo, foliis tenuius laciniatis.

63. Ciſtus latifolius, magno flore, Barr. Icon. 1315. Obſ. 547.

64. Clinopodium Luſitanicum, ſpicatum et verticillatum I. R. H. 193. Prunella Luſitanica capite reticulato, folio Pediculari Tournefortii H. Ox. III. 363. *Bitumen redolet tota Planta, et flos magis ſimilis videtur Moldavicæ quam Clinopodii. Mihi enim videbatur habere galeam quadrifidam, barbam bifidam.*

65. Clymenum, quod Vicia maxima, Galegæ foliis majoribus, tetraphylla vel pentaphylla, binatim floribus e viridi flaveſcentibus H. Cath.

66. Cnicus cæruleus, humilis, montis Lupi H. L. B. I. R. H. 451. Carduncellus montis Lupi, Lob. Ic. 20. J. B. III. 92. *Radix dulcis et edulis eſt*, Gemaſhdee *dicta ab Arabibus.*

67. Colocynthis pumila, Arabica, fructu Nucis Juglandis magnitudine, cortice lævi.

68. Colocynthis pumila, echinata, Arabica, ſtriis duodecim luteis et viridibus variegata.

69. Colocynthis pumila, &c. Cucumis Africanus echinatus minor. Hyſtrix vegetabilis vulgo Harm. Par. B. 133. Deſcr. Cucumis echinatus, Colocynthidis folio, ibid. Ic.

70. Coris cærulea maritima C. B. P. Hanzærah *Arabum, cujus decoctionem in Lue Venerea copioſe ſumunt.*

71. Coris cærulea maritima, foliis brevioribus, magis confertis.

72. Conyza tomentoſa, Polii foliis crenatis. *Planta hæc triuncialis eſt, ſuaveolens, floribus ſingularibus.*

73. Cotyledon paluſtris, Sedi folio, floribus rubris, longioribus. *Flores oblongi ſunt, Centaurii minoris facie, et in umbella quaſi naſcuntur.*

74. Cotyledon paluſtris, Sedi folio, floribus luteis, brevioribus.

75. Crambe ſpinoſiſſima Arabica, foliis longis, anguſtis, floribus in foliorum alis.

76. Crepis Chondrillæ folio Comm. Ac. R. Sc. Ann. 1721. p. 195.

77. Cynogloſſum Hiſpanicum, anguſtifolium, flore obſoleto. *Variat flore candido.*

78. Cyno-

78. Cynogloſſum Myoſotidis foliis incanis, flore parvo, ruberrimo. *Variat foliis et floribus majoribus.*

79. Cypreſſus fructu quadrivalvi, foliis Equiſeti inſtar articulatis. *Mediam videtur habere naturam inter Arbores et Frutices; nunquam enim vidi altiorem quindecim pedibus. Folia læte virent, in quibus multæ ſquamulæ, ut in aliis ſpeciebus, apparent; ſed, Equiſeti inſtar, crebris articulationibus ſibi invicem pyxidatim conjunguntur.*

80. Cyperus humilis, ſpicis brevibus, rotundis, conglomeratis Buxbaum Cent. I. p. 34. Tab. 55. f. 1.

81. Cytiſus foliis ſubrotundis, glabris, floribus amplis glomeratis, pendulis.

82. Cytiſus foliis oblongis, ſeſſilibus, glabris, ſiliquis compreſſis, incanis. *Folia in ſummitatibus plerumque ſingularia ſunt, et ipſæ ſummitates aculeatæ.*

83. Cytiſus ſpinoſus H. L. B. I. R. H. 648.

84. Dens Leonis ramoſus, maximus, foliis piloſis, ſinuatis, pedalibus. Hieracium Platyneuron, Burſæ Paſtoris cæſura, piloſo folio H. Cath. Raij H. III. 145.

85. Digitalis Verbaſci folio, purpurea, minor, perennis, Hiſpanica Barr. Ic. 1183. Obſ. 187.

86. Drypis Theophraſti Anguill. Spina umbella foliis vidua C. B. P. 388.

87. Echinopus Orientalis, Acanthi aculeati folio, capite magno ſpinoſo cæruleo Cor. 34. Comm. Ac. R. Sc. Ann. 1718. p. 151. n. 4.

88. Echium Scorpioides, ſpicis longis, plerumque recurvis, floribus parvis, purpureis.

99. Echium Tingitanum, altiſſimum, flore variegato H. Ox. III. 140. Pluk. Alm. 133.

90. Elychryſum Gnaphaloides, floribus in ſtrictiorem umbellam congeſtis.

91. Eruca flore albo, foliis ſeſſilibus, Burſæ Paſtoris.

92. Eruca pumila, floribus albis, foliis laciniatis.

93. Eryngium amethyſtinum, Luſitanicum, folio longiori I. R. H. 327. Eryngium minus, montanum, flore cæruleo, pulchro Vir. Luſit.

94. Eryngium foliis anguſtis, digitatis Hellebori.

95. Eryngium planum, medium, foliis oblongis. *Ab* Eryngio latifolio plano C. B. P. 386. *Diſtinguitur foliis ad caulem longioribus, magis ſerratis, et magis ſpinoſis, ab* Eryngio plano minori C. B. P. *Foliis amplioribus, in pediculum non contractis, capitulis minus frequentibus et ſpinoſis differt.*

96. Eryſimum incanum Arabicum, Marifolio.

97. Fagonia Arabica, longiſſimis aculeis armata. *Folia anguſta ſunt, ſucculenta, et Roriſmarini inſtar rugoſa. Tribulus veterum ut et Dardar* דרדר S. S. *Olavi Celſii Hierobot.*

98. Fabago Arabica, teretifolia, flore coccineo. Fagonioides Memphitica, virens obſcurius, folio craſſiori, bidigitato, tereti, fructu cylindraceo, Lipp. MS. apud Phyt. *Sherard.* Ox.

99. Fœniculum Luſitanicum minimum acre I. R. H. 312.

100. Ferrum equinum minus, ſiliqua in ſummitate ſingulari.

101. Ferula Galbanifera Lob. Ic. 779. I. R. H. 321.

102. Filago ſupina, capitulis rotundis, tomento obſitis Barr. Obſ. 999. Leontopodium verius Dioſcoridis, Hiſpanicum ejuſdem, Icon. 296.

103. Filicula Euphraſiæ foliis conjugatis.

104. Filicula ramoſa, Luſitanica, pinnulis ad Ceterach accedentibus I. R. H. 542. H. R. Monſy. 79. Ic. et Deſcript. Filicula Smyrnæa, pinnulis rotundis, minimis Pet. Gaz. T. 71. f. 3.

105. Filix Lonchitidis facie, foliis anguſtis, pellucidis, auriculatis.

106. Fungus Mauritanicus, verrucoſus, ruber Pet. Gaz. Tab. 39. f. 8. Cynomorion purpureum officinarum Michelii, Nov. Gen. p. 17. Tab. 12. Orobanchen Mauritanicam appellavi, Obſ. p. 264. *Tota planta eſt ſubſtantiæ rubræ fungoſæ, glande ſive capitulo florigero ſucco rubro ſcatente; floribus ſtamineis, conſtipatis, arcte ſemina dura, rotundula, amplectentibus.*

107. Galeopſis Hiſpanica, fruteſcens, Teucrii folio I. R. H. 186. *Sepibus conficiendis inſervit prope Algerium. Per maturitatem, ſemina pulpa molli, nigra, baccæ inſtar, involuta ſunt.*

108. Geniſta-

96. Erysimum &c.
77. Cynoglossum &c.
98. Fabago.
Fructus.
79. Cupressus &c.
80 Geranium &c.
97. Fagonia &c.

115. Gratiolæ affinis Hyssopifolia major, Lusitanica Flor. Bat. 69.

99. Paniculum &c.

115. Gramen Barcinonense, panicula densa aurea I.R.H. 523.

143. Jacea &c. Sive Toffi Arabum.

108. Geniſta-Spartium Luſitanicum, ſiliqua falcata I. R. H. 646.

109. Geniſta-Spartium procumbens, Germanico ſimile, foliis anguſtioribus.

110. Geranium puſillum, argenteum, Heliotropii minoris folio. *Folia, calyces et roſtrum argentea ſunt. Folia eleganter ſtriata. Pediculi aphylli.*

111. Geranium ſupinum, rotundo Batrachoideis craſſo, tomentoſo folio, radice ruſeſcente, longius radicata I. R. H. 269. Bocc. Muſ. p. 2. Tab. 128. p. 160.

112. Globularia fruticoſa, Myrti folio, rigido, nunc tridentato, nunc plano. *Teſſilgah* Arabum.

113. Gramen alopecuroides maximum J. B. Spica diviſa Scherardi Scheuchz. Agroſt. 247.

114. Gramen avenaceum, ſtrigoſius, utriculis lanugine albicantibus. *A* Gramine avenac. utric. lanugine flaveſc. I. R. H. 525. *Differt locuſtis minus ſparſis, anguſtioribus, ariſtis tenuioribus, lanugine verſus baſin et ad ſemen candidâ. Porro locuſtæ hujus ſimplices ſunt, et ſemen tantum unum lanuginoſum, nudum continent, cujus apex ariſtâ ſimplici terminatur, cum illius locuſtæ gemina contineant ſemina calyce ſ. ſquama involuta, quorum ariſta e latere vel dorſo calycis exit.*

115. Gramen Barcinonenſe, panicula denſa, aurea I. R. H. 523.

116. Gramen Bromoides, feſtucea tenuique panicula minus Barr. Ic. 76. 2.

117. Gramen Cyperoides, aquaticum, majus, panicula Cyperi longi, ex craſſioribus glumis compacta, et brevibus petiolis donata Læl. Triumf. in Obſ. J. Bapt. Fratris.

118. Gramen dactylon, ſpica gemina, triunciali, glabra et ariſtata Michel. Cat. H. Piſ. Gramen bicorne ſive Diſtachyopheron Bocc. Rar. 20.

119. Gramen humile, capitulis glomeratis pungentibus. *Palmari eſt altitudine; caulibus tenuibus uno alterove folio glabro cinctis, quorum ſummitatibus capitulum naſcitur rotundum, e pluribus ſpicis brevibus, e quatuor aut quinque glumarum paribus, ariſtis breviſſimis, rigidis terminatis, conflatum.*

120. Gramen panicula ſpicata, villoſum, locuſtis villoſis Scheuchz. Agroſt. 248.

121. Gramen paniceum, ſpica ſimplici aſpera C. B. P. 8. Panicum ſylveſtre dictum et Dens caninus 1, J. B. II. 443.

122. Gramen paniculatum, locuſtis maximis, phœniceis, tremulis I. R. H. 523.

123. Gramen paniculatum, minus, locuſtis magnis, tremulis I. R. H. 523.

124. Gramen pratenſe, capillare, paniculatum, locuſtis parvis flaveſcentibus. *Folia ad radicem capillaria, conferta, ad culmum latiuſcula, panicula ſpecioſa, e locuſtis muticis e tribus aut quatuor ſquamarum ad margines argentearum paribus compoſita.*

125. Gratiolæ affinis Hyſſopifolia major, Luſitanica Flor. Bat. 69. Raii Hiſt. III. 526.

126. Hedyſarum clypeatum, flore ſuaviter rubente Eyſt. I. R. H. 401. Sellah *Arabum, quo ſaginantur pecora per totam Africam.*

127. Hedyſarum procumbens, annuum, anguſtioribus foliis. Onobrychis major, humi projecta, longulo, cordato foliolo, floribus rubris clypeatis, articulatis, ſiliquis ſparſis H. Cath. Raii Hiſt. III. 457.

128. Helianthemum Halimi minoris folio Barr. Obſ. 527. Ic. 287.

129. Helianthemum luteum, Thymi durioris folio Barr. Obſ. 521. Ic. 441.

130. Helianthemum Orientale, fruteſcens, folio Oleæ, flore luteo Sher. Boerh. Ind. Alt. 276.

131. Helianthemum ſupinum, Polygoni folio hiſpido et glutinoſo.

132. Heliotropii facie Planta, lanuginoſa, ferruginea, pediculis ſingularibus. *Folia habet Heliotropii minoris, craſſa, villoſa; calyces ſpecioſos, multifidos; ſemina quaterna, nuda, ovata, nigerrima. Florem non vidi.*

133. Helitropium majus autumnale, Jaſmini odore I. R. H. 139.

134. Heſperis hirſuta, lutea, Bellidis folio dentato. *Similis eſt Barbareæ murali J. B. Sed folia pediculis ad caulem longioribus hærent, et flores lutei ſunt rariores.*

135. Heſperis incana, aſpera, foliis ſtrictiſſimis.

136. Heſperis maritima, perfoliata, Bellidis folio, glabro. *Non eſt eadem planta cum* Heſperide marit. perfoliat. parvo flore cæruleo Pluk. Alm. 183. *Sed differt ab ea foliis brevioribus, glabris, ſuccolentis, minus dentatis, flore majore, ſimili* Heſperi-

dis

dis maritimæ ſupinæ exiguæ I. R. H. 223. *A qua foliis caulem amplectentibus, obtuſioribus et glabris diſtinguitur.*

137. Hieracium anguſtifolium, parce dentatum, floribus in extremitatibus caulium ſingularibus.

138. Hieracium ſpecioſum, ſquamoſo calyce, Lycopi folio craſſo, ſubtus incano.

139. Hyacinthus obſoletior Hiſpanicus ſerotinus Cluſ. H. 177.

140. Hypecoon Orientale Fumariæ folio Cor. 17.

141. Hypecoon tenuiore folio I. R. H. 230.

142. Hypericum ſive Androſæmum magnum Canarienſe, ramoſum, copioſis floribus, fruticoſum Pluk. Alm. 189. Tab. 302. f. 1.

143. Jacea acaulos lutea, Erucæ folio, ſquamarum ciliis candidis. *Radix dulcis, eſculenta eſt, et ab Arabibus* Toffs *dicitur.*

144. Jacea purpurea, Atractylidis facie. *Hujuſce Plantæ ſquamæ unicuſpides ſunt, ciliis ad marginem brevioribus.*

145. Jaſminoides aculeatum Polygoni folio, floribus parvis albidis. *Fruteſcit ſarmentis longis, tenuibus prependentibus. Spinæ tenues, cortex ramorum incanus tenuique villo obſitus.*

146. Ilex aculeata, cocciglandifera C. B. P. 425. I. R. H. 583.

147. Juniperus major, bacca cærulea C. B. 489. I. R. H. 589.

148. Kali ſpinoſum, foliis craſſioribus et brevioribus I. R. H. 247. Pluk. Alm. 202.

149. Kali membranaceum, foliis anguſtis conjugatis. *Faciem habet* Kali foliis anguſtioribus ſpinoſis I. R. H. 247. *Sed folia ſemper ex adverſo naſcuntur, et ſemina illius carent foliis membranaceis.*

150. Ketmia Ægyptiaca, Vitis folio, parvo flore I. R. H. 100. Bamia J. B. II. 959.

151. Ketmia veſicaria Africana, flore amplo, purpureo. *A* Ketmia verſic. Afric. Tournefortii *differt foliorum ſegmentis longioribus; frequentius ſerratis; calycis ſegmentis anguſtioribus et longioribus; flore ampliori, toto purpureo.*

152. Lacryma Jobi latiore folio I. R. H. 532.

153. Lathyrus ſativus, flore et fructu minore ſive *Kerſailah* Arabum. *Faciem habet Lathyri, qui ἀμφίκαρπος* Moriſoni *dicitur, ſed ad altitudinem quinque aut ſex pedum creſcit.*

154. Leucoium ſylveſtre, latifolium, floſculo, albido, parvo Raii Hiſt. I. 786.

155. Limonium caulibus alatis, Aſplenii foliis, minus aſperis, calycibus acutioribus, flaveſcentibus. *El Khaddah* Arabum.

156. Limonium caulibus alatis, foliis minus ſinuoſis, calycibus ex viridi cæruleis.

157. Limonium peregrinum Aſplenii foliis C. B. P. 192. I. R. H. 342. Limonium pulchrum Rauwolfii Park. Th. 1235. *Variat noſtrum ab hac* Rauwolfianâ ſpecie, *quod tota facie nigricet, et hirſutius ſit, cum illa rufeſcat, cum calicibus cæruleis pallidioribus.*

158. Limonium minus, obtuſo folio, viminibus foliatis Barr. Ic. 806. Obſ. 690. Limonium minus J. B. III. App. 877.

159. Limonium foliis Halimi Broſſ. I. R. H. 340.

160. Limonium galliferum, foliis cylindraceis. *Florem habet pulchrum, ruberrimum. Folia incana, quaſi Saccharo incruſtata. Gallæ ovales caulibus adnaſcuntur, non uno, ſed plurimis foraminibus pertuſæ.*

161. Linaria foliis ſubrotundis, floribus e foliorum alis naſcentibus. *Rami plerumque uno verſu diſpoſiti ſunt.*

162. Linaria Myrſinites, flore luteo, rictu purpureo. *Eſt* Linaria Myrſinites, triphylla, flore candide ſulphureo, rictu croceo, brachiata H. Cath. *Noſtra habet folia plerumque bina ex adverſo poſita; florem luteum; rictum purpureum.*

163. Linaria ſaxatilis, Serpilli folio I. R. H. 169.

164. Linaria Sicula multicaulis, folio Molluginis Bocc. Rar. 38.

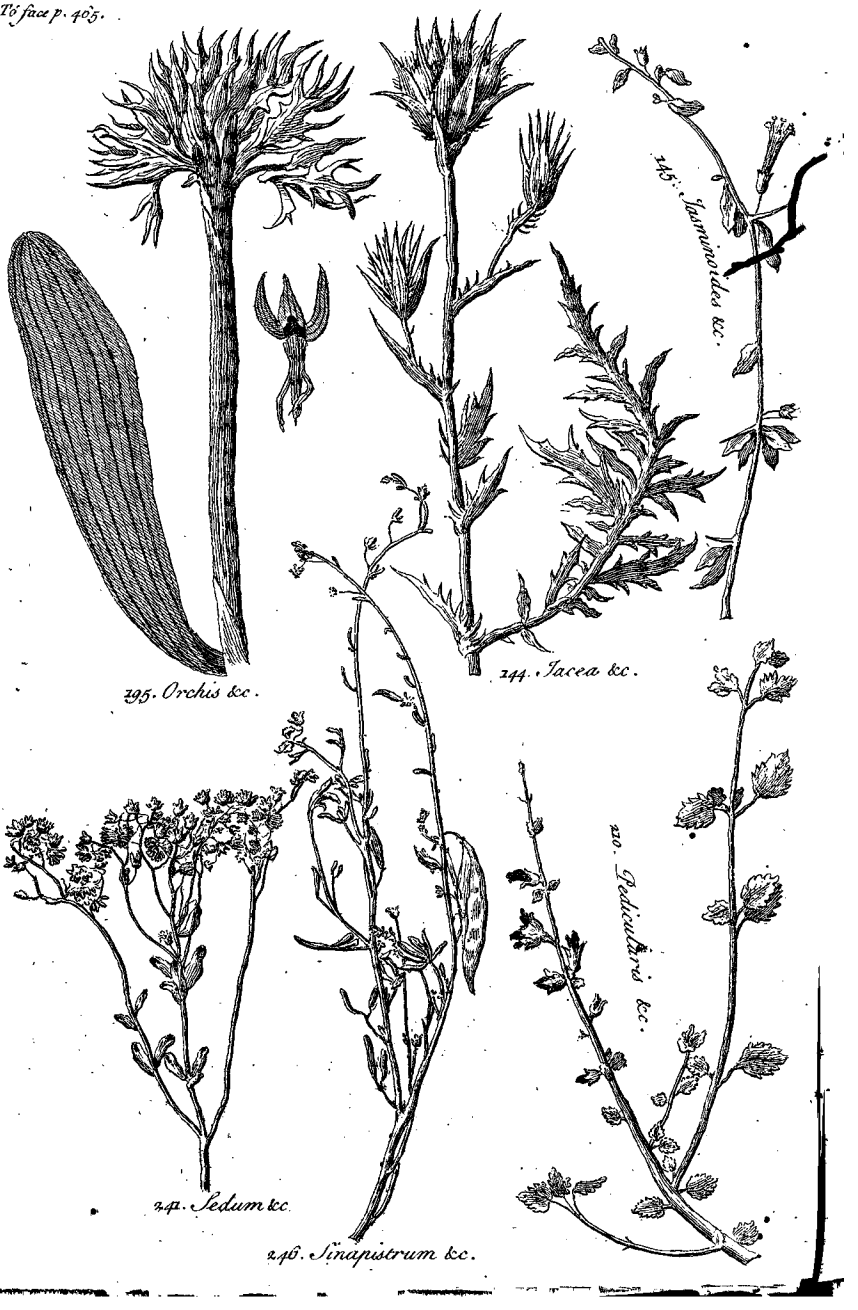
165. Linaria Siculæ accedens, Molluginis folio breviori.

166. Linaria triphylla, exigua, calcari prælongo.

167. Linum maximum Africanum, flore cæruleo Volk. Fl. Nov. Linum ſativum, latifolium, Africanum, fructu majore I. R. H. 339.

168. Lotus

To face p. 405.


145. Jasminoides &c.
144. Jacea &c.
195. Orchis &c.
220. Radicularis &c.
242. Sedum &c.
246. Sinapistrum &c.

168. Lotus Græca, maritima, folio glauco et velut argenteo Cor. 27.

169. Lotus humilis, ſiliqua falcata, e foliorum alis ſingulari.

170. Lotus pentaphyllos, ſiliqua cornuta C. B. P. 332. Trifolium ſive Lotus *Hierazune*, edulis, ſiliquoſa J. B. II. 365.

171. Lotus villoſa, altiſſima, flore glomerato I. R. H. 403.

172. Lunaria fruticoſa; perennis, incana, Leucoïi folio Cor. 15. *In Arabia invenit.*

173. Lupinus lanuginoſus, latifolius, humilis, flore cæruleo purpuraſcente, ſtoloniferus H. Cath. *Tota planta eſt ferruginei coloris.*

174. Lychnis ſupina, pumila, Bellidis foliis craſſis, flore biſido, purpureo, calyce ſtriato, turgido Raii Hiſt. III. 481.

175. Lychnis ſylveſtris anguſtifolia, calyculis turgidis, ſtriatis C. B. P. 205.

176. Lychnis ſylveſtris, floſculo rubro, vix conſpicuo Griſl. Vir. Luſit. Viſcago Luſitanica, flore rubello, vix conſpicuo H. Elth. p. 433. f. 406.

177. Lyſimachia lutea humilis, Polygalæ folio.

178. Medica magno fructu, aculeis ſurſum et deorſum tendentibus I. R. H. 411.

179. Medica marina Lob. Ic. 38. *Hæ Medicæ ſpecioſiores ſunt ex aliis plurimis, quæ in Africa ſponte naſcuntur.*

180. Melongena Ariſtolochiæ foliis, fructu longo, violaceo. *Flores purpurei ſunt, ſtellatim diviſi, et minores quam in aliis ſpeciebus, quæ in Africa coluntur.*

181. Meſembrianthemum perfoliatum, foliis exiguis, monacanthis. *Similis eſt Planta ſpecimini Plantæ Siccæ* Meſembrianthemi perfoliati foliis minoribus, diacanthis Hort. Elth. *Sed tota pallidior eſt, foliis paulo brevioribus et confertioribus, rectis, non reflexis, illius inſtar. Cæterum folio triquetra ſunt, apice ſpinoſo terminata. Non mihi contigit florem videre.*

182. Muſa fructu cucumerino, longiori Plum. 24. Mauz, Muſa Alp. Ægypt. 78, 79, 80.

183. Muſcus ceranoides Palmenſis, comis digitatis, Orchili (*Argol*) dictus Muſ. Pet. 436. Gazoph. Nat. II. Tab. 7. f. 12. Fucus capillaris tinctorius J. B. III. 796.

184. Muſcus terreſtris Luſitanicus Cluſ. Hiſt. CCXLIX.

185. Myrrhis annua, alba, hirſuta, nodoſa, Paſtinacæ ſylveſtris folio candicante Hort. Cath. Raij Hiſt. III. 254.

186. Myrtus latifolia Bætica 1. vel foliis laurinis C. B. P. 460. I. R. H. 640. *Copioſe creſcit in dumetis, cum aliis ſpeciebus, quæ folia habent anguſtiora.*

187. Naſturtium Alpinum, Bellidis folio, majus C. B. P. 105. Prodr. 46. *Non eſt Naſturtii Species, pertinet enim ad Plantas ſiliquoſas.*

188. Nerium floribus rubeſcentibus C. B. P. 464. Oleander, Laurus roſea Lob. Ic. 364. *Difflah* Arabum.

189. Oenanthe aquatica, tenuifolia, major, bulbulis radicum longiſſimis Cat. Pl. Agr. Flor. *Hort. Piſ. Tilli.*

190. Oenoplia ſpinoſa C. B. P. 477. Nabca foliis Rhamni vel Jujubæ J. B. I. l. 6. c. 39.

191. Onobrychis Apula, perennis, erecta, foliis Viciæ, floribus albicantibus, lineis rubris diſtinctis, in ſpica denſa congeſtis, fructu aculeato Michel. Cat. H. Piſ.

192. Onobrychis ſeu caput Gallinaceum minus, fructu maximo, inſigniter echinato Triumf. ap. ad Frat. 65. I. R. H. 590.

193. Onobrychis Orientalis, argentea, fructu echinato minimo Cor. 26.

194. Orchis anguſtifolia, anthropomorphos, ſpica laxiori, flaveſcente.

195. Orchis anthropomorphos, foliis latis, obtuſis, capitulis globoſis, purpuraſcentibus.

196. Orchis foliis maculatis, ſpica denſa, rubra.

197. Orchis fucum referens, labello gibboſo.

198. Orchis montana Italica, lingua triſida Burſer. Camp. Elyſ. Tab. 2. p. 204. Ic.

199. Orchis myodes, lutea, Luſitanica Breyn. Cent. 101. Tab. 45.

200. Orchis odorata, ſpica rubra, floribus parvulis, muſciformibus.

201. Orchis palmata, Sambuci odore, floribus purpureis C. B. P. 86. I. R. H. 435.

202. Ornithopodio affinis, hirſuta, Scorpioides C. B. P. 350.

203. Orobanche flore ſpecioſo, fimbriato, ruberrimo. *Folia per caules habet anguſta, et foliola floribus ſubjecta in longos tenueſque mucrones exeunt.*

204. Orobus foliis anguſtiſſimis, radice tuberoſa.

205. Oxyacantha Arabica, fructu magno, eduli. *Faciem habet* Oxyacanthæ vulgaris, *ſed fructus ad Ceraſi vel Azarolæ magnitudinem accedit. Copioſe creſcit in monte S. Catharinæ e regione montis Sinai.*

206. Palma dactyliſera, ſive *Nahhal* Arabum; cujus fructus *Tummar*; ramuli *Jeridd* appellantur. *Triginta plus dactylorum (ſive Tummar) ſpecies apud* Zebenſes *et* Jereedenſes *enumerantur; quarum* Trunſhah *inter grandiores et molliores; forſan* Caryotæ *veterum*; Deglutnôre *inter dulciores et conſervationi aptiſſimas reputantur.*

207. Palma minor, C. B.P. 506. Palma humilis Hiſpanica, ſpinoſa et non ſpinoſa J.B.I.369.Chamæriphes Don.Pempt. Palma folio plicatili, ſ. flabelliformi, humilis Raii Hiſt. II. 1369. *Interdum ad altitudinem creſcit 6 aut 8 pedum, avulſis quotannis e trunco, ut in Palma, ramulis.* Spectat. *Palma Thebaica, Doom dicta. S.* Κεκιόφορον et Κύπρος *Theophraſti* Hiſt. Plant. l. iv. c. ii. et l. iii. cap. 8. S. Cuci Plin. Hiſt. Nat. l. xiii. cap. 9. S. Palmæ facie Cuciofera J. Bauh. l. iii. cap. 86.

208. Pedicularis Cretica maritima, amplioribus foliis et floribus Cor. 9.

209. Pedicularis Cretica ſpicata, maxima, lutea Cor. 9.

210. Pedicularis Teucrii folio, pediculo inſidente, flore parvo ruberrimo.

211. Pelecinus vulgaris I. R. H. 417.

212. Periploca, foliis anguſtis, confertis, floribus ex viridi flaveſcentibus. *Folia parva rigida, obtuſa; quædam acutiora, ad genicula plurima naſcuntur. Flores pediculis brevibus hærent e petalis anguſtis compoſiti.*

213. Perſicaria latifolia major et mitior, foliis et caule maculatis, ſpica craſſiori Cat. Pl. Agr. Flor. *Michel. Cat. H. Piſ.*

214. Phillyrea anguſtifolia, minus ſerrata Comm. Ac. R. Sc. Ann. 1722. p. 198. n. 7. Phillyrea anguſtifolia ſpinoſa I. R. H. 596.

215. Phillyrea Hiſpanica, Nerii folio I. R.H.596. Comm.Ac.R.Sc.Ann. 1722. p. 198. n. 6.

216. Periploca foliis anguſtis, confertis, floribus ex viridi flaveſcentibus. *Folia parva rigida, quædam obtuſa, quædam acutiora, ad genicula plurima naſcuntur. Flores pediculis brevibus hærent, e petalis anguſtis compoſiti.*

217. Phlomis lutea, villoſa, perfoliata, verticillis crebrioribus. *Folia incana, mollia, propemodum triangularia arcte caulem amplectuntur, et ab eo perforantur.*

218. Pimpinella Oenanthes foliis, multum brachiata, plerumque nuda. *Graveolens eſt Planta, quam copioſe inveni ſuper ripas* Fluminis Salſi, *inter montes* Al Beeban *dictos. Caules tenues ſunt, duri, cavati, huc illuc diſtorti, cum umbellis parvulis albis.*

219. Polium Valentinum, fruticoſum, anguſtifolium, flore albo Barr. Obſ. 331. Ic. 1048.

220. Polygala vulgaris, major J. B. III. 387.

221. Polygonum folio oblongo, crenato. *Folia unciam longa ſunt, tertiam unciæ partem lata, utrinque acuminata, et per margines tenuiter crenata. Flores bracteati ſunt, monopetali, candidi, lituris, ut in Ornithogalo, viridibus notati.*

222. Quercus vulgaris brevibus pediculis J. B. I. 2. 70. *In Africa hæc ſpecies retinet folia per totum annum. Glans dulcis eſt, et ab Africanis toſta comeditur. Altitudinem viginti pedum non excedit. Folia habet Quercus latifoliæ a Caſp. Bauhino depictæ ad Matth.* p. 179.

223. Ranunculus Luſitanicus, folio ſubrotundo, parvo flore I. R. H. 286.

224. Reſeda Calcitrapæ folio, majore et rarius diviſo, perennis.

225. Rhagadiolus minus brachiatus, folio ampliore vix dentato.

226. Rhamnus Siculus, pentaphyllos Bocc. Rar. 43. *Copioſe creſcit prope Warran. Frutex eſt ſpinoſus, foliis in extremitatibus plerumque triſidis, flore herbaceo, luteſcente Ziziphi, pentapetalo, calyce integro, bacca monopyrena, ruberrima, eduli, oſſiculo ovali, Momordicæ feminis figurâ.*

227. Roſa ſylveſtris, rotundifolia, glabra, purpurea, calycibus eleganter foliatis.

228. Rubeola vulgaris quadriſolia, lævis, floribus obſoletis Michel. Cat. H. Piſ.

229. Ruta minor, trifoliata, incana, procumbens.

230. Salix ramulis villoſis, foliis laurinis, ſuperne nigricantibus.

231. Sa-

To face p. 467

257. Thlaspidium &c.

252. Teucrium Delphinij folio, non ramosum.

251. Telephium Myosotidis folijs, amplioribus conjugatis

269. Ziziphus Sylvestris I. R. H. 627. Lotus Veterum Seedra Arabum, quæ &c

231. Satureia ſaxatilis, tenuifolia, compactis foliolis Bocc. Muſ. 168. T. 119. Satureia ſeu Thymbra fruteſcens, Paſſerinæ Tragi foliis anguſtioribus H. Cath. 197.

232. Scabioſa montana, fruticoſa, reclinatis Archilleæ naſcentis foliis H. Cath. I. R. H. 465. Pterocephalus Achilleæ foliis Comm. Ac. R. Sc. Ann. 1722. p. 184. n. 3.

233. Scabioſa prolifera, foliacea, ſemine membranaceo majore H. Ox. III. 50. n. 41. Afterocephalus annuus, humilis, integrifolius Comm. Ac. R. Sc. Ann. 1722. p. 182. n. 23.

234. Sclarea folio mucronato, flore cæruleo, punctato. *Folia pedalia ſunt, laciniata Dentis Leonis inſtar, longo mucrone terminata. Flos dilute cæruleſcit, cum punctulis purpuraſcentibus ubique diſperſis.*

235. Scolymus Chryſanthemus [illegible]rennis Ægyptiacus ferocior D. Lippi Comm. Ac. R. Sc. Ann. 1721. p. 219. n. 13. Cnicus Niliacus elatior, aſperrimus, e glauco inveni, alato caule flore luteo Lip. MS. apud Phyt. Sherard. Ox.

236. Scorzonera Orientalis, foliis Calcitrapæ, flore flaveſcente Cor. 36. Scorzoneroides Reſedæ foliis nonnihil ſimilibus Comm. Ac. R. Sc. Ann. 1721. p. 209. n. 2.

237. Scrophularia Hiſpanica Sambuci folio, glabro I. R. H. 166. *Variat foliis hirſutis.*

238. Scrophularia Luſitanica fruteſcens, Verbenæ foliis I. R. H. 167.

239. Scrophularia Meliſſæ folio I. R. H. 167.

240. Scrophularia Orientalis, Chryſanthemi folio, flore minimo, variegato Cor. 9.

241. Sedum vermiculare, pumulum, glabrum, floribus parvis, cæruleis.

242. Sena Orientalis, fruticoſa, Sophera dicta H. L. Bat.

243. Sideritis floribus luteis, Meliſſæ foliis, verticillis ſpinoſis. Ocymaſtro Valentino Cluſii *ſimilis eſt, ſed folia habet minus obtuſa, flores luteos et ſpicam productiorem.*

244. Sideritis purpurea, foliis longis, ſerratis. *Galea floris ampliſſima eſt, et folia longis pediculis adnectunur. Calyx, ut in priori, aculeatus.*

245. Sideritis purpurea, anguſtifolia, non ſerrata. *Folia ſuperiora Roriſmarini magnitudine, Verticilli longius diſtant, e floribus et calycibus rarioribus, aculeatis, conflati.*

246. Sinapiſtrum trifoliatum, anguſtifolium, aſperum, ſiliqua latiori. *Siliqua ſeſquiuncialis eſt, ſcabra, foliorum et caulis inſtar. Semina villoſa. Folia inferiora terna, ſuperiora ſimplicia. Tota planta viſcoſa eſt.*

247. Sinapiſtrum triphyllum, ſcabrum, floribus ſaturate rubris. *Tota planta prioris inſtar, viſcoſa eſt; ſed folia habet latiora et longiora, Hyſſopi figura et magnitudine; caules craſſiores; flores denſius et umbellatim fere in ſummitate congeſti.*

248. Sinapiſtrum triphyllum, breviore et hirtiori folio. *Hæc ſpecies*, ut priores, *viſcoſa eſt.*

249. Sium arvenſe, foliis inferioribus ſubrotundis, ſuperioribus plerumque trifidis et laciniatis.

250. Tamariſcus Madraſpatana, Cypreſſi facie Muſ. Pet. 681. Tamariſcus Indiæ Orientalis Belgarum æmula, ramulis Cupreſſi: Autocorea Malab. Pluk. Mantiſſ. 177. Phyt. Tab. 445. f. 4. *Copioſe creſcit per totam Africam.*

251. Telephium Myoſotidis foliis, amplioribus conjugatis. *Summitates ramulorum Heliotropii inſtar reflectuntur. Florum petala parva ſunt; vaſcula ſimplicia; trivalvia; plura ſemina continentia.*

252. Teucrium Delphinii folio, non ramoſum. *Flos albidus eſt, ſpecioſus, ad ſingula genicula gemellus. Caulis quadrangularis, ſimplex. Folia glabra.*

253. Thapſia ſive Turbith Garganicum, ſemine latiſſimo J. B. III. 2. 50. I. R. H. 322. Boneffa *Algerienſium, cujus radicem mulieres comedunt, ut pinguiores fiant.*

254. Thapſia foliis Coronopi diviſura, ſegmentis obtuſioribus, ſubtus incanis, ſive *Toufailet* Arabum.

255. Thapſia foliis Coronopi diviſura, viridioribus et acutioribus, ſive *Edreeſe* Arabum.

256. Thlaſpidium foliis anguſtis, argenteis, fructu parvo.

257. Thlaſpidium folio ſubrotundo, dentato, fructu majori.

258. Thymbra tenuiſſimis Ericæ foliis, verticillatim congeſtis.

259. Tragacantha calyce veſicario, ſpinis recurvis.

260. Tribulus terreſtris, minor, incanus, Hiſpanicus Barr. Ic. 558.

261. Trifolium humifuſum, glabrum, foliis ciliaribus Vail. B. Par. 195.

262. Turritis vulgari ſimilis, ſed fruticoſior.

263. Vicia latifolia, glabra, floribus pallidis, ſiliqua lata, glabra. *Carina et alæ albæ ſunt, galea ſubfuſca; ſiliqua lata, unciam longa.*

264. Viola fruticoſa, longifolia, flore amplo, ſubcæruleo. *A* Viola Hiſpanica ruticoſa longifolia I. R. H. 421. *Differt foliis latioribus et floribus magis ſpecioſis.*

265. Virga aurea major, foliis glutinoſis et grave olentibus I. R. H. 414. *Madramem* Arabum. vid. Obſ. p. 198.

266. Vulneraria flore et capitulis majoribus. *Non eſt eadem planta cum* Vulneraria flore purpuraſcente I. R. H. 591.

267. Vulneraria Hiſpanica, Ornithopodii ſiliquis. Coronopus ex Cod. Cæſareo Dod. Pempt. 109.

268. Xiphion minus, flore luteo, inodoro I. R. H. 364. Iris Mauritanica Cluſ. Cur. Poſt. in fol. 24.

269. Ziziphus Dod. Pempt. 807. I. R. H. 627. Jujubæ majores, oblongæ C. B. P. 446. Zizipha Sativa J. B. I. 40. *Hujus fructus ab Africanis Aſafifa dicitur, unde forſan Zizipha vel Ziziphus.*

270. Ziziphus ſylveſtris I. R. H. 627. Zizipha ſylveſtris infœcunda H. Cath. (*Secundum ſpecimen Hor. Sicci Sherardiani Oxoniæ aſſervatum,*) Seedra Arabum, quæ et Lotus veterum. *Habitus Rhamni. Flores ut in Zizipho. Fructus dulcior, rotundior, minor, Pruni ſylveſtris magnitudine. Oſſiculum magnum ut in Zizipho. Seedra porro fructus fert paſſim, Groſſulariæ inſtar, per ramos ſparſos; quum Jujubæ ſurculis tenuibus, pedalibus, quotannis e ramorum extremitatibus pullulantibus, naſcuntur. Ziziphus etiam ad altitudinem viginti pedum aut plus excreſcit; caudice magno, rimoſo; ramis diſtortis, in extremitatibus nodoſis; foliis oblongis, majoribus. Seedra vero plerumque non niſi tricubitalis aut quadricubitalis eſt, ramulis plurimis ex eadem radice plerumque exeuntibus, levioribus, candidioribus, rectioribus, cum ſcliis parvulis, rotundis, rigidioribus. Sponte noſcitur cum alibi, tum præcipue in loco Regni Tunetanorum,* Jereed *nuncupato, quæ quondam Pars fuit* Lotophagorum Regionis. Vid. Obſ. p. 143. *Fructum maturum comedi menſibus Decembri et Januario.*

II.

Appendix de Coralliis et eorum Affinibus.

1. A Lyconium candidum, cretaceum, lamellatum Maris Numidici. *Lamellæ, ordine irregulari invicem connexæ, cavernas formant variarum figurarum.*

2. Corallum album. *Maris Numidici eſt, et ejuſdem formæ et habitus cum Corallo rubro, ſed rarius invenitur.*

3. Corallum rubrum I. R. H. 572. Tab. 339. *Copioſe colligitur a piſcatoribus Gallicis, apud* La Calle *demorantibus, in mari Numidico.*

4. Eſchara Rondeletii 133. J. B. III. 809. Retepora Eſchara marina Imp. 630. *ex mari Numidico.*

5. Fucus pennam referens I. R. H. 569. Penna marina J. B. III. 802. Inſp. 650. *Ut Fucorum hæc ſpecies inter Zoophyta interdum numeratur, locum perperam dedi inter Piſces, Obſ.* p. 191. *Piſcatores Algerienſes interdum retibus extrahunt, ubi per noctem lumen ſpargit, Cicindelæ inſtar, ut proximiores piſces dignoſci poſſint.*

6. Fungus coralloides lamellatus Maris Rubri. Fungus lapideus Cluſ. Hiſt. 124. Rar. Muſ. Beſl. T. 27. 26. f. 3. J. B. 813. Ic. 1, 2. *Formam et figuram fere ſemper imitatur Fungi terreſtris, qui nunc planus eſt, nunc gibboſus, pileatus, aut clypeiformis.*

Sed

1. *Alcyonium candidum, cretaceum, lamellatum Maris Numidici.*

33. *Madrepora Astroites &c.*

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30. *Madrepora Abrotanoides, ramosior, tuberculis horizontaliter positis.*

36. *Porus Magnus &c. cum radicibus a, a, a. vid. obs. p. 445.*

18. *Fungus eburneus &c.*

Sed laminæ semper in superiori superficie, dum inferior in pistillo desinit.

7. Fungus coralloides rosaceus M. R. *Pars inferior pistillo innititur; superior in acetabula, lamellis plurimis striata, explicatur.*

8. Fungus coralloides, encephaloides, gyris in medio sulcatis, lamellatis serratis Boerh. Ind. Alt. p. 1. Lapis fungites, cerebriformis Raii H. App. 1850. *In pistillo desinit, sed latiori, quam in lamellata aut rosacea specie. Ex* Mari Rubro.

9. Fungus Astroites, stellis contiguis, parvulis M. R. *Stellæ nimirum angulatæ, decimam unciæ partem in diametro non superant. In formâ fere semper globulari crescit hæc Fungorum species, cum aliæ sequentes vario modo rupes operiunt, nec ullæ formæ specificæ constant. Vid. Obs.* p. 445.

10. Fungus Astroites, stellis contiguis majoribus M. R. *Stellæ ad quartam unciæ partem accedunt, et nunc sunt rotundæ, nunc ovatæ.*

11. Fungus Astroites, stellis contiguis, lamellatis, rotundis M. R. *Stellæ in hac specie semiunciales sunt, cum lamellis profundioribus et crassioribus.*

12. Fungus Astroites, stellis contiguis, profundis, angulatis M. R. *Stellæ etiam semiunciales sunt et profundæ, pentagonæ aut hexagonæ figuræ, cum lamellis minoribus.*

13. Fungus Astroites, tuberosus, Stellis rarioribus M. R. *Stellæ exiguæ, elegantes, figuram præ se ferunt* Omphalodis Lusit. Lini-folio I. R. H. 140.

14. Fungus Astroites elegans, Stellis rarioribus, papillatis, rotundis M. R. *Stellæ paulo majores quam in nona specie, cum radiis asperis, punctatis, eminentibus.*

15. Fungus Astroites, stellis rarioribus, acetabulis minus profundis M. R. *Stellæ tertiam unciæ partem occupant, rotundæ aut ovatæ figuræ; minus præterea eminent, cum radiis levioribus, et intervallis Stellarum magis sulcatis.*

16. Fungus Astroites, parum ramosus, stellis rarioribus, papillatis M. R. *Stellæ ut in 14ª. specie, sed læviores.*

17. Fungus tubulatus et stellatus M. R. Coralliis affinis Madrepora J. B. III. 807. Madrepora Imp. 720. 3. Spec. *Ex cylindris sive tubulis multis constat, fasciatim dispositis; extremitatibus plerumque prominentibus et in stellas desinentibus. Variat tubulis rotundis ovatis, et compressis. Ad hanc speciem referri potest Fossile illud* Grew's piped waxen Vein *dictum.*

18. Fungus eburneus, pyxidatus, compressus. *Lævis est ex attritu maris; licet primitus rugosa fuisse videatur hæc species, instar Fossilis illius* Plectronites *dicti, quod etiam ad Fungum hunc referri debet.*

19. Keratophyton arboreum, nigrum Boerh. Ind. Alt. p. 6. Corallium nigrum sive Antipathes J. B. III. 804. Lob. Ic. 251. *Rami in hac specie plerumque intertexti sunt, cum materia quadam, ceræ simili, hic illic intersperſa. Ex Mari Numidico.*

20. Keratophyton cinereum, striatum, tuberculis minoribus M. N. *Pedalis est hæc species, ramis rectis, minus frequentibus. Tubercula, Nicotianæ seminibus æqualia, ubique per ramulos disperguntur.*

21. Keratophyton cinereum, flabelliforme, nodosum, ramis frequentioribus, huc illuc distortis M. N. *Formam Lithophyti flabelliformis habet, nisi quod rami non sunt intertexti. Pedalis aut altior est hæc species; striata etiam, cum tuberculis, ut in priori; sed paulo majoribus, acutioribus, et frequentioribus.*

22. Keratophyton cinereum, fragile, ericæforme, ramis pinnatis M. N. *Tubercula undique circa ramulos, Ericæ foliorum instar, vel quasi catenatim disposita sunt.*

23. Keratophyton rufescens, ramulis capillaceis, sparsis M. N. *Cubitalis est hæc species, cum tuberculis parvulis, quasi evanescentibus.*

24. Keratophyton rubrum, Algeriense, Virgulti facie. *Tuberculis totum obseritur, parvulis sursum spectantibus, instar vasculorum Plantaginis, sed minoribus. Tricubitalis est, cum ramis laxiori modo dispositis, quam in 20ª. specie. Lapidi, cui innascebatur, plurima semina, Lentis magnitudine, introrsum emarginata, lapidea, subfusca adhærebant; quorum unum postea turgebat, quasi germine fœtum, et colorem rubrum, Corallinum, assumebat. Ex Mari Algeriensi.*

25. Madrepora Αβροτανοειδὴς candida, ramulis brevibus obtusis, uno versu dispositis

positis M. R. Planta Saxea Ἀβροτανοειδὴς Cluſ. H. Exot, l. vi. cap. vii. *Variat colore fuſco. In utraque ſpecie tubercula ſunt aperta.*

☞ Hæc et ſequentes ſpecies, Ἀβροτανοειδὴς dicuntur, quod " Rami Abrotani " feminæ (a nonnullis Chamæcypariſſus " Plinii exiſtimati) foliorum formam pœ- " ne referebant; nam brevibus tubulis, " inſtar minutiſſimorum foliorum conſta- " bant, eadem ſerie, ut illa, diſpoſitis, " ſed magis multiplici, quia pauci quater- " nis, plerique quinis, ſenis et ſeptenis, " interdum etiam pluribus ordinibus com- " pacti erant: In craſſioribus autem ra- " mis, qui quodammodo candicabant, " fere attrita erant illa folia, ut dumtaxat " foramina relicta apparerent tanquam " foliorum tubulatorum veſtigia. Cluſ. " Exot. l. vi. cap. vii. p. 123.

26. Madrepora Ἀβροτανοειδὴς repens, ramulis longioribus uno verſu diſpoſitis M. R. *Fuſci eſt coloris, cum tuberculis minoribus, apertis, ſed aſperioribus.*

27. Madrepora Ἀβροτανοειδὴς nodoſior, tuberculis, uno verſu diſpoſitis M. R. *Ejuſdem eſt coloris cum priori, ſed minus ramoſa, cum ramis craſſioribus.*

28. Madrepora Ἀβροτανοειδὴς ramoſior, tuberculis ſurſum ſpectantibus M. R. *Candida eſt, cum ramis acutis, erectioribus.*

29. Madrepora Ἀβροτανοειδὴς ramoſior, tuberculis longioribus, clauſis, ſurſum ſpectantibus M. R. *Rami acuti ſunt, ut in priori; ſed virideſcunt, et umbellatim quaſi naſcuntur.*

30. Madrepora Ἀβροτανοειδὴς ramoſior, tuberculis horizontaliter diſpoſitis M. R. *Tubercula aperta ſunt, et rami magis ſparſi quam in præcedenti ſpecie.*

31. Madrepora Aſtroites flaveſcens, nodoſa, minus ramoſa M. R. Corallium ſtellatum, minus rubrum J. B. III. 806. Imp. 718.

☞ *Loco tuberculorum, hæc et ſequentes ſpecies aſteriis ſive ſtellis exiguis planis ubique notantur; propterea* Aſtroites *audit, et ab* Abrotanis *diſtinguitur.*

32. Madrepora Aſtroites humilis, ceratiformis M. R. *Ramuli in hac ſpecie rotundi ſunt, et in extremitatibus acuti.*

33. Madrepora Aſtroites major, ceratiformis, ramulis obtuſis, planis, magis diſperſis M. R.

34. Madrepora Aſtroites major, ceratiformis, ramulis obtuſis, planis, confertis M. R.

35. Madrepora Aſtroites, Quercus marinæ vulgaris facie, ramis connatis M. R.

36. Madrepora maxima arborea I. R. H. 573. Porus magnus J. B. III. 807. Imp. 624. *Ex mari Numidico.*

37. Madrepora tubulis eleganter coagmentatis conſtans, ruberrimis Boerh. Ind. Alt. p. 6. Tubularia purpurea I. R. H. 575. Coralliis affinis; Alcyonium fiſtuloſum rubrum J. B. III. 808. H. Ox. III. Tab. et fig. ultima. *Ex Mari Rubro, ubi ſpecimina vidi longitudine ſeſquipedali, latitudine pedali.*

III.

Catalogus Foſſilium quorundam Rariorum e Rupibus et Lapicidinis Africæ, Vid. p. 442.

1. ACuleus cylindraceus, ſtriatus, bullis parvulis obtuſis inſignitus. Radiolus cucumerino minori accedens, teretiformis Lhuidii Lithophylacii Brit. 1030. *Formam habet aculei Echini laticlavii, bullis donati,* Obſ. p. 447.

2. Aculeus cylindraceus, ſtriatus, bullis parvulis acutis notatus.

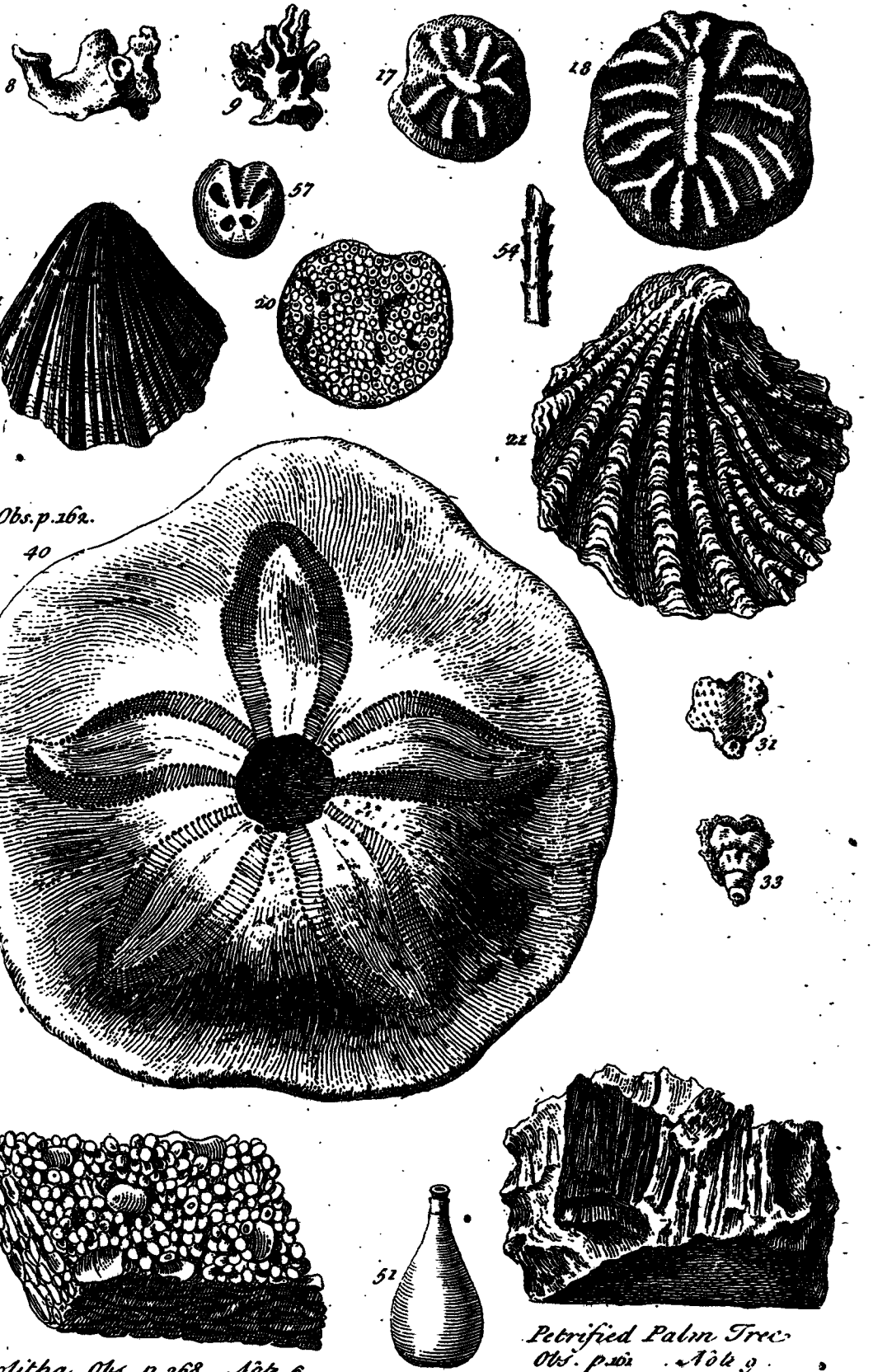
3. Aculeus lævis, quadratus.

4. Balanus cinereus, foſſilis.

5. Belemnites, Succini adinſtar, pellucidus, quibuſdam *Lapis Lincurius* Lh. Lithoph. 1707.

6. Buccinites cancellatus, eburneus. *Hæc et ſequens ſpecies figuram habent Cochlearum ſtriatarum* Liſteri Sect. v. cap. 7. *de Conchyl.*

7. Buc-



Pisolitha Obs. p. 368 . Nôte. 6.

Petrified Palm Tree
Obs. p. xii . Nôte 9.

7. Buccinites cancellatus, ruber, cum vermiculo adſito.

8. Corallium ramuloſum, perfractum Lh. Lith. 92. Tab. 3. f. 92. *Noſtrum pyxidatim ſeu in acetabulis variæ formæ creſcit, quorum plurimi compreſſi ſunt. In rupibus Oranenſibus frequens.*

9. Corallium tenuius ramoſum, album, elegantiſſimum.

10. Echinites bullis parvulis, raris, ordine irregulari poſitis.

11. Echinites diſcoides, lævis, gibboſior.

12. Echinites galeatus, ſpoliatus, ſeu ex toto ſiliceus, vulgaris Lh. Lith. 956. Brontias ſive Ombria ovalis *Plot.* H. Ox. T. 2. f. 14. & T. 3. f. 1. *Noſtrum in dorſo paulo gibboſius eſt.*

13. Echinorum laticlaviorum ſcuta varia.

14. Echinites pentaphylloides, lævis, gibboſus, ad oris aperturam ſulcatus.

15. Echinites pileatus, ſeu figura conoide vel quodammodo turbinata; ſive Brontia prima *Lachmundi* Lh. Lith. 962.

16. Fungi pyxidati foſſilis, qui vulgo *Plectronites* dicitur, varia ſpecimina.

17. Fungus foſſilis rugoſus et ſtriatus, gibboſior.

18. Fungus foſſilis, rugoſus, magis depreſſus, ruga intermedia, longiori.

19. Madreporæ *Imperati* foſſilis, varia etiam ſpecimina.

20. Myconites rotundus, compreſſus. *Overum piſcium quorundam maſſa foſſilis eſt, quam Nomades Theveſtini nummum eſſe exiſtimant in lapidem converſum.*

21. Oſtracites confragoſus lividus, ſtriis inæqualibus imbricatis, et margine ſinuato donatus.

22. Palma foſſilis. *Hoc ſpecimen mihi dedit V. Cl. Dom.* Le Maire, *quod cum aliis foſſilibus, Echinis ſcilicet et Conchyliis, recepit e Ras Sem in Regione* Barcæ. *Eundem caudicem, eoſdemque fibrarum ductus et ordines præ ſe fert, quibus lignum ipſius Arboris vivæ inſignitur. Trunci integri interdum ibidem inveniuntur.*

23. Pectinites eburneus, ſex aut ſeptem ſtriis elatioribus, levibus, inciſuris aſperiuſculis inſignitus. *Triuncialis fere eſt in circuitu, et æqualiter auritus. Striæ ejus et inciſuræ æqualia conchylii ſpatia occupant.*

24. Pectinites elegans, ſtriis quinque aut ſex elatioribus, majoribus, intermediis tribus minoribus, magis depreſſis.

25. Pectinites lævis, parvulus, ſtriis crebris, ad baſin tenuiter ſulcatis.

26. Pectinites lævis, undecim aut duodecim ſtriis compreſſis inſignitus. *Ad pectines ex utraque parte æqualiter auritos pertinet. Faſciis creberrimis, tenuiſſimis eleganter notatus eſt. Medio dorſo cavus, ubi ſtriæ et faſciæ evaneſcunt.*

27. Pectinites magnus ſtriis quindecim aut pluribus, bullatis, elatioribus, inciſuris intermediis depreſſioribus, aſperis. *Magnitudine et figura convenit cum Pectine primo* Liſteri, *niſi quod noſter inæqualiter auritus eſt.*

28. Pectinites parvulus, ſtriis crebris, aſperis eleganter notatus.

29. Pectunculites exiguus, confractus, tenuiter ſtriatus.

30. Pectunculites polyleptogynglymus, ſpecioſus, leviter faſciatus. *Decem uncias ſuperat in circuitu. Cretacei coloris eſt, intus fragmentis variorum conchyliorum foſſilium repletus.*

31. Retepora foſſilis, cinerea.

32. Terebratula vulgo, ſive Conchites vertice perforato. *Varia hujuſce Conchylii, ut et Pectinum genera, ubique per Africam, Aſiam, Arabiam, et in ipſis Pyramidum gradibus, inveniuntur.*

33. Trochites nodoſus, luteus, ſemiuncialis.

E Lapidibus præcipue Pyramidum, et locis circumjacentibus. Vid. p. 368.

34. Aculeus cylindraceus bullatus. *Non ſtriata eſt hæc aculeorum ſpecies, ut reliquæ fere omnes quæ ſunt bullatæ. Ad magnitudinem pennæ anſerinæ aut cygneæ interdum accedit.*

35. Aculeus latus, compreſſus, lævis, ſubcæruleus. *Dimidiam unciæ partem latus eſt.*

36. Aſtaci foſſilis brachii articulus extimus et maximus. *Aſtacum totum vidi in lapide incluſum, hanc tamen partem mihi ſolummodo contigit evellere.*

37. Chamæpholadis anguſtæ, intus faſciatæ, nucleus.

38. Chamites

38. Chamites, planus, cinereus, rotundulus, roſtro acuto. Circinita minor Lh. Lith. 741.

39. Echinites laticlavius compreſſus, ſemiuncialis, ordinibus bullarum binis, juxta poſitis.

40. Echinites pentaphylloides, ſtriis æqualibus, umbone aperto. *Plus quam pedalis eſt in circuitu, dorſo parum elato et aperto. In deſerto* Marah *inveni, in via ad montem* Sinai.

41. Ichthyodos, vulgo *Bufonites* dictus, gibboſus, luteus.

42. Ichthyodos, vulgo *Gloſſopetra* dictus, acutus, ſemipellucidus, margine utrinque lævi.

43. Lithoxylon ferruginei coloris. *Fragmenta plurima variæ magnitudinis ubique jacent in* Iſthmo *inter* Kairum *et* Suez.

44. Madrepora aſtroites foſſilis, Quercûs marinæ facie.

45. Madreporæ *Imperati*, Pori magni et Corallii cujuſdam flavi coloris, fragmenta plurima foſſilia.

46. Pholas cinereus, foſſilis, uncialis, lævis. *Figurâ convenit cum* Pholade involucro ſpoliato *Lh. Lithoph. Tab.* 10. *f.* 878. *niſi quod noſter major eſt.*

47. Rhombi cylindracei, parvuli, nucleus.

48. Turbinites compreſſus, faſciatus, ſeſquiuncialis. *Albidus eſt, fluore intus refulgens. Figura fere convenit cum* Σάλπιγξι Fab. Colum. Aquat. &c.

E Rupibus præcipue Laodiceæ et Scalæ Tyriorum. Vid. p. 344.

49. Aculei Echinorum foſſiles, *Lapides Judaici* vulgo dicti. *Horum ubique varietates quamplurimæ.*

50. Aculeus lævis, turgidus, Lapidis Judaici forma et magnitudine.

51. Aculeus lævis, Pyri vel Fici-formis. *Hic et præcedens lividi coloris ſunt.*

52. Aculeus lævis, cylindraceus, cinereus. *Pennam corvinam craſſitie æquat.*

53. Aculeus toroſus, minor Lh. Lith. 1047.

54. Aculeus toroſus, ſeu ramuſculis inſignitus, major. *A præcedenti differt, quod, ramuſculis (aculeis potius) exceptis, totus lævis ſit, cum alter ſtriis altis notetur.*

55. Aculeus idem cum 53°. ſpecie. *Variat bullis aſperioribus.*

56. Echinites aſperior, pentaphylloides, ſtriis majoribus, æqualibus.

57. Echinites lævis, pentaphylloides, poſtica parte gibboſiori, anteriori ſulcata. *Ex quinque ſuturis ſive ſtriis, quibus inſignitur hæc ſpecies, tres anteriores longæ, ſpecioſæ ſunt, (quarum media ſulcata eſt;) alteræ duæ rotundæ, exiguæ.*

58. Locuſtæ forficula vel ſerrula interior Lh. Lith. 1246. Tab. 14. f. 1246.

59. Pectunculites lacunatus minor Lh. Lith. n. 684.

60. Porus minimus, reticulatus Lh. Lithoph. n. 94. Tab. 3. 94. *Speciminum noſtrorum alia cylindracea ſunt, alia compreſſa, quorum unum et alterum arcuatum eſt, in margine eleganter ſinuoſum.*

61. Piſcium foſſilium varia genera, ad Iſlebrianos accedentia forma, ſitu et materia.

62. Squilla foſſilis, *cujus Icon exhibetur in* Muſ. Beſl. *niſi quod noſtra minor eſt.*

☞ Præter hæc, plus centum alia Foſſilium genera, una cum Echinis, Coralliis et eorum affinibus, Vaſibus, Icunculiſque quamplurimis ex *Africa* olim tranſmiſi, et Celeberrimo *Woodwardio* conſervanda commendavi. Illo interim defuncto, dum ipſe apud exteras gentes commoratus fui, eorundem nullam plane rationem reddere voluerunt Teſtamenti Curatores; ſed ea aut vendebant aut retinebant omnia, tam meo, quam Hiſtoriæ Naturalis Studioſorum detrimento.

IV.

Piſces nonnulli Rariores, qui maria Algerienſium et Tunitanorum frequentant. Vid. p. 191.

1. ALphæſtes ſive Cynœdus Rondel. 170. Raii Synopſ. Piſcium, p. 137.
2. Aſellus mollis major } Raii Synop.
3. Aſellus mollis minor } p. 55, 56.
4. Aurita omnium Autorum Raii Synop. p. 131. *Jeraffa* Maurorum.
5. Bugloſſus, Linguacula, et Solea Rondel. p. 320. Raii Synop. 33.
6. Canis Carcharias ſive Lamia Rondel. p. 18.
7. Catulus minor vulgaris Raii Synop. 22.
8. Cephalus Rondel. 260. Mugil Raii Synop. 84.
9. Cuculus Aldrovandi Raii Synop. 89.
10. Draco ſive Araneus Plinii Rondel. 301. Raii Synop. 91.
11. Faber ſive Gallus marinus Rondel. 328. Raii Synop. 99. a nonnullis *Piſcis Sti. Petri* dicitur.
12. Galeus Acanthias ſive Spinax Rondel. 373. Raii Synop. 21.
13. Galeus lævis Rondel. 375. Raii Synop. 22.
14. Glaucus Aldrov. p. 302. Amia Salvian. fig. & p. 121. Leccia *(Leechy* vulgo) Romæ et Liburni Raii Synop. 93.
15. Hirundo Rondel. 284. Milvus Salvian. fig. & pag. 187. Raii Synop. 89.
16. Hirundo vera Veterum Salvian. fig. & pag. 185. Mugil alatus Rondel. 267.
17. Lupus Rondel. 268. Raii Synop. 83.
18. Mairo Hiſpan. *Maizah* ſ. Capra Maurorum.
19. Mormyrus Rondel. 153. Raii Synop. 134. *Maura*, vulgo Hiſpanis.
20. Mullus barbatus Rondel. 290. Raii Synop. 90. *Triglia* Italis, *Rouget* Gallis, locis quamplurimis *Salmonetta*.
21. Muræna Rondel. 403. Muræna omnium Autorum Raii Synop. 34.
22. Orthragoriſcus ſive Luna Piſcis Rondel. 424. Mola Salvian. fig. 154. pag. 155. Raii Synop. 51.
23. Pagrus Rondel. 142. Raii Synop. 131.
24. Paſtinaca capite obtuſo ſive bufonio. Aquila Romanis et Neapolitanis; nec non ſecunda Paſtinacæ ſpecies Rondel. 338. Raii Synop. 23.
25. Pelamys vera ſive Thynnus Ariſtotelis Rondel. 245. Raii Synop. 58.
26. Perca marina Rondel. 182. Raii Syſiop. 140.
27. Polypus orbicularis, exiguus, mari innatans, Obſ. 192. & 445. Urtica marina ſoluta Fab. Col. Aquat. &c. p. xx. xxii.
28. Raia clavata Rondel. 353. Raii Synop. 26.
29. Raia oxyrrhynchos, Squatinæ facie, unico ſpinarum ordine donata. Raia ſecunda oxyrrhynchos, ſive Bos antiquorum Rondel. 347.
30. Salpa Rondel. 154. Raii Synop. 134.
31. Sargus Rondel. 122. Raii Synop. 130.
32. Scorpius minor ſive Scorpæna Rondel. 142. Raii Synop. 142.
33. Serpens marinus, caudâ compreſsâ, pinnis cincta, in orâ nigris. Myrus Rond. Geſnero, p. 681.
34. Squatina dorſo lævi, alis in extremitatibus clavatis.
35. Torpedo maculis pentagonice poſitis, nigris.
36. Trachurus Rondel. 133. Raii Synop. 92.
37. Turdus minor cæruleus.
38. Turdus minor fuſcus, maculatus, pinnis branchialibus aureis, aliis ex viridi cæruleſcentibus.
39. Turdus minor viridis Raii Synop. 137.
40. Umbra Rondel. 132. Raii Synop. 95.
41. Zygæna Rondel. 389. Raii Synop. 20.

V.

Conchylia quædam rariora Maris Mediterranei et Rubri.

Vid. p. 192.

1. AUris marina major, latior, plurimis foraminibus conſpicua Liſt. Hiſt. Conchyl Sect. 7. n. 2.

2. Balanus purpuraſcens, capitis apertura valde patenti. *Nunc rupibus adhæret, nunc Corallinis, aut Materiæ cuidam Madreporæ affini, a Penecillis et Vermiculis perforatæ.*

3. Balanus purpuraſcens, ventricoſior, capite minus aperto.

4. Buccinum ampullaceum fuſcum, clavicula nodoſa.

5. Buccinum ampullaceum, roſtratum, ſtriatum, triplici ordine muricum exaſperatum Liſt. Hiſt. Conch. Sect. 13. n. 22. Purpura altera muricata Aquat. & Terr. Obſ. LXIV. Ic. LX. ſive Murex parvus roſtratus Fab. Col. Deſc.

6. Buccinum ampullaceum, roſtratum, (leviter) ſtriatum, muricatum, ex duplici ordine in ima parte primi orbis Liſt. H. Conch. Sect. 13. n. 20. *Variat colore eburneo et fuſco.*

7. Buccinum ampullaceum tenue, roſtro leviter ſinuoſo, profunde et rarius ſulcato Liſt. H. Conch. Sect. 13. n. 18.

8. Buccinum bilingue ſtriatum labro propatulo. *Labrum noſtri planum eſt, ſine digito aliter figuram præ ſe fert* n. 20. Liſt. H. Conchyl. Sect. 12.

9. Buccinum bilingue, roſtro recurvo, labro producto, clavicula muricata. *Variat inter* n. 19. & 28. Liſt. H. Conch. Sect. 15. n. 1.

10. Buccinum breviroſtrum nodoſum Liſt. H. Conch. Sect. 15. n. 1. Purpura violacea Fab. Col. *Purpur.* Ic. & Deſcript. p. 1.

11. Buccinum maximum, variegatum ac ſtriatum Fab. Col. Aquat. & Terreſt. Obſ. LIII. Ic. Deſcript. LVI.

12. Buccinum recurviroſtrum, ſtriatum, quinque aut ſex muricum ordinibus aſperum.

13. Buccinum roſtratum, candidum, leviter ſtriatum, ſinuoſum Liſt. H. Conch. S. 14. n. 14.

14. Buccinum roſtratum, labro duplicato, quaſi triangulari Liſt. H. Conch. Sect. 14. n. 37.

15. Buccinum roſtratum læve, labro ſimplici, alte ſtriatum ad intervalla Liſt. H. Conch. Sect. 14. n. 27.

16. Buccinum roſtratum, triplici ordine muricum canaliculatorum horridum Liſt. H. Conch. Sect. 14. n. 41. Purpura ſive Murex pelagius, marmoreus Fab. Col. Ic. LX. Deſcr. LXII.

17. Chamarum et Tellinarum, margine lævi et dentato, multa genera.

18. Cochlea variegata, denſe et admodum tenuiter ſtriata, item quolibet orbe duæ inſignes ſtriæ parallelæ, bullatæ Liſt. H. Conch. Sect. 4. n. 60.

19. Concha margaritifera pleriſque: *Berberi* antiquis Indis dicta Liſt. H. Conch. l. 3. Sect. 1. n. 56.

20. Concha marina marmorea imbricata Liſt. H. Conch. l. 3. n. 191.

21. Concharum Veneris varietates quamplurimæ.

22. Muſculus polyleptogynglymus, elegans ſtriatus, roſtris a cardine remotis. Muſculus Matthioli Liſt. H. Conch. l. 3. Sect. 6. n. 208.

23. Nautilus maximus denſe ſtriatus, auritus. Nautilus CALCEOL. Nautili primum genus Ariſtot. ſecundum Bell. & Aldrov. Liſt. Hiſt. Conch. Sect. 4. n. 7.

24. Nerita albidus, ad columellam dentatus, ſtriis magnis et parvis alternatim diſpoſitis donatus.

25. Oſtrea roſtro craſſo, elato, in aciem compreſſo.

26. Patella major ſtriata, rufeſcens intus eburnea, vertice acuto. *Ovalis eſt figuræ, pedemque fere habet in circuitu.*

27. Patellarum

27. Patellarum verticibus integris et perforatis varia genera.

28. Pecten parvus, inæqualiter auritus, tenuiter admodum ſtriatus. *Magna colorum varietate ubique reperitur hæc ſpecies et mari Rubro et Mediterraneo.*

29. Pecten ruber, æqualiter auritus, 13 ſtriarum, dorſo compreſſo læviori. *Striæ et canaliculi ſpatia æqualia occupant.*

30. Pectunculus cinereus, aſper, anguſtior, tenuiter et creberrime ſtriatus.

31. Pectunculus craſſus, eburneus, alte ſtriatus, orbicularis. *Variat colore rufeſcente.*

32. Pectunculus eburneus, dorſo in aciem compreſſo Liſt. H. Conch. l. 3. Sect. 5. n. 155.

33. Pectunculus in medio leviter ſtriatus, intus lividi coloris. Striæ et faſciæ virideſcunt; cæterum albidus eſt, et ad figuram accedit n. 169. Liſt. H. Conch. l. 3. Sect. 5.

34. Pectunculorum lævium, triquetrorum varia genera.

35. Pectunculus polyleptogynglymus craſſus, profunde ſulcatus, luteus. *Ad figuram accedit* n. 70. Liſt. H. Conch. l. 3. Par. 1. *ſed noſter duplo major eſt.*

36. Pectunculus polyl. lævis, rufeſcens, faſciis albidis.

37. Pectunculus polyl. cancellatus, oblongus, margine ex una parte productiori. *Margo ubique muſco fimbriatus eſt.* Figura convenit cum Chama nigra Rondeletii Liſt. H. Conch. l. 3. n. 260.

38. Pectunculus recuviroſter, medio lævis, ad marginem faſciis rugoſis, quaſi Corallinis, notatus. *Non diſſimilis eſt formâ patellis vertice adunco.*

39. Pectunculus rufeſcens, ſtriis magnis compreſſis, in dorſo leviter ſulcatis, in margine echinatis.

40. Pectunculorum ſtriatorum, roſtris rectis et recurvis, infinita genera.

41. Pinna magna, imbricata, ſive muricata Liſt. H. Conch. l. 3. n. 214. *Nacre vel Nakker vulgo maris Mediterranei; cujus Barba, Sericî inſtar mollis, fuit forſan Byſſus Antiquorum.*

42. Solen rectus, ex purpura radiatus Liſt. H. Conch. l. 3. n. 256.

43. Sphondylus coccineus, ſtriatus, roſtro lato, ex una parte auriculato.

44. Sphondylus eburneus, lamellatus, roſtro acuto, recurvo. *Lamellæ plerumque pyxidatim poſitæ ſunt, et Balanos forma referunt.*

45. Trochus clavicula breviori, ſtriis eleganter nodoſis.

46. Idem ſtriis inferioribus nodoſis, ſuperioribus muricatis.

47. Idem muricatus, clavicula magis exporrecta.

48. Trochus pyramidalis, erectus, rufeſcens, lævis, orbibus latis, in imis partibus ſolum nodoſis. *Icon* apud Jonſt. H. de Exang. p. 36. Tab. 12. *ſub titulo* Trochi magni. Turbo maximus Perſicus verior Fab. Col. Aq. & Terr. Obſ. LXV. Tab. LX.

49. Trochus pyramidalis, ſtriatus, muricibus radiatim ad marginem diſpoſitis Liſt. Hiſt. Conch. Sect. 8. n. 9.

VI.

A Vocabulary of the Showiah Tongue. Vid. p. 223.

Nouns &c.		*Nouns &c.*		*Nouns &c.*	
Abeloule	*a Fool.*	Dahan	*Butter.*	Takſheeſh	*a Girl.*
Afuſe	*The Hand.*	Dakallee	*a Little.*	Taphoute } Kylah }	*The Sun.*
Ageeſe	*Cheeſe.*	Defouâl	*bad.*	Taſta	*a Tree.*
Agroume	*Bread.*	Earden	*Wheat.*	Tegmert } Alowdah }	*a Mare.*
Akham	*a Houſe.*	Elkaa } Tamout }	*The Earth.*	Tigenoute	*Heaven.*
Akſheeſh	*a Boy.*	Eiar	*The Night.*	Tizeer } Youle }	*The Moon.*
Akſoume	*Fleſh.*	Emee	*The Mouth.*	Thamatouth	*a Woman.*
Akyth	*Here.*	Ergez *or* Arghaz }	*a Man.*	Thamempt	*Honey.*
Alfill	*Snow.*	Ewdan	*People.*	Thamzeen	*Little.*
Amoukran	*a Maſter. or Great.*	Fouſe	*The Head.*	Thareet	*The Feet.*
Anſerne	*The Noſe.*	Haken	*there.*	Thaw-went	*a Fountain.*
Aowde } Yeeſe }	*a Horſe.*	Jittta	*The Body.*	Thaulah	*a Feaver.*
Arica	*To Morrow.*	Ikra	*Itor ſomething.*	Theganee	*Dates.*
Arſh	*a City.*	Illaalee	*good.*	Themzee	*Barley.*
Aſeegaſs	*a Year.*	Ouglan	*The Teeth.*	Thezaureene	*Grapes.*
Aſſa	*To Day.*	Oule	*The Heart.*	Thigata	*The Night.*
Athrair	*a Mountain.*	Ouly	*a Sheep.*	Woodmis	*The Face.*
Aufkee *or* Ikfee }	*Milk.*	Ouzail	*Iron.*	Yegazer	*a River.*
Azimoure	*Olives.*	*The Names of other Metals as in the* Arabick.		Yethra	*a Star.*
Azgrew	*a Stone.*			Yibowne	*Beans.*
Azrimme	*a Serpent.*	Swaagy	*Butter-Milk.*		

The Declenſion of NOUNS and PRONOUNS.

Athrair	*a Mountain.*	Neck	*I.*	Enou	*Mine.*	Ifouſeou	*my Hand.*
Ithourair	*Mountains.*	Ketche	*Thou.*	Eanick	*Thine.*	Ifouſeak	*thy Hand.*
Yegazar	*a River.*	Netta	*He.*	Eaniſs	*His.*	Ifouſeis	*his Hand.*
Yegazran	*Rivers.*	Nekenee	*We.*	Enouwan	*Ours.*	Ifouſenouwan	*our Hands.*
Ergez	*a Man.*	Hounouwee	*Ye.*	Enneſſick	*Yours.*	Ifouſenouak	*your Hands.*
Ergeſſen	*Men.*	Neutnee	*They.*	Eaniſſen	*Theirs.*	Ifouſeniſſen	*their Hands.*

VERBS, with their *Conjugations.*

Aitch	*to eat.*	Owee	*to take away.*	Ketche ſeulgas	*Thou ſpokeſt,* &c.
Akel	*to ſee.*	Teganoute } Attuſs }	*to ſleep.*	Itch	*eat.*
Atſoue	*to drink.*	Sewel	*to ſpeak.*	Iſwa	*drink.*
Bidfillah	*to ſtand.*	Neck ſewel	*I ſpeak.*	Iker	*riſe,* &c.
Einah	*to mount.*	Ketche ſewel	*Thou ſpeakeſt.*		
Erſe	*to diſmount.*	Neck ſeulgas	*I ſpoke.*		
Ouſe	*to give.*				

NUMBERS

NUMBERS and PHRASES.

Ewan	*One.*	*Word for* give me: *as* If kee	*not thirſty.*
Seen	*Two.*	ikra adetſhâg, neck alouzagh.	Kadeſh aſſegaſſen themeur-
The other Numbers as in the Arabick.		*Give me to eat, for I am hungry.*	taye akyth? *How many Years have you been here?*
Manee illa	*Where is it?*	If kee ikra wamani adeſwaag,	Ergez illâlee oury tagadt ikra.
Ouſhee eide	*Give me that.*	nec foudagah. *Give me Water to drink, for I am thirſty.*	*A good Man fears nothing.*
Ouſhedoura	*I give it.*		Ergez defoûal tagedt.
If kee *alſo or* Ifgee *is another*		Neck urfedaag ikra. *I am*	*A bad Man is afraid.*

VII.

The ſeveral Stations of the Hadjees, or Pilgrims, in their Journey to Mecca. Vid. p. 321. viz.

From KAIRO to	Deraje[1].		Deraje.
BIRQUE EL HADJE	80 *a pond of water.*	Callah Watiah	200 *good water.*
Dar el Sultan	200 *no water.*	Akrah	250 *bad water.*
Adjeroute	200 *bitter water.*	Hunneck	180 *no water.*
Raſty watter	180 *no water.*	Howry	200 *bad water.*
Teah-wahad	200 *no water.*	Ne-bat	200 *good water.*
Callah Nahhar	220 *good water.*	Houdaarah	200 *bad water.*
Ally	230 *no water.*	Caſabah Yembah	220 *running water.*
Callah Accaba	220 *good water.*	Sakeefah	200 *no water.*
Thare el Hamar	200 *no water.*	Bedder Houneene[3].	80 *running water.*
Shirfah	240 *no water.*	Sebeely Ma-ſonne	240 *no water.*
Maggyre el Shouïbe[2]	230 *running water.*	Raaky Me-kat[4].	230 *good water.*
Ain el Kaſaab	220 *running water.*	Kadeedah	220 *no water.*
Callah Mowlah	220 *good water.*	Aſphaan	200 *running water.*
Sheck Murzooke	180 *good water.*	Wed el Fathmah	200 *running water.*
Callah Azlem	190 *bad water.*	MECCA	120 Zim-zem[7].
Aſtabel Anter	230 *good water.*	Arafat[6]	60

The pilgrims, in their return from Mecca, *viſit the ſepulchre of their prophet at* Medina, *which lies at the diſtance of three ſtations from* Bedder Houneene, *in the following manner*, viz.

from thence to	Deraje.	
Sakarah Yedeedah	180	*good water.*
Kubbourou Showledâhy	230	*no water.*
MEDEENA Mownowârah	200	

[1] Each *Deraje* ضرج is equal to four minutes of an hour. [2] *Shouibe* the ſame with *Jethro*, who is ſuppoſed to have lived here. [3] Here the pilgrims arrive the night of the new-moon and perform ſeveral religious ceremonies, lighting up a number of lamps, and diſcharging a variety of ſquibbs, rockets, and other fire-works. [4] Here out of veneration to the Holy City they are approaching, they ſtrip themſelves naked, and travel, in that manner, the four following days, covering only their heads and privities with napkins. [5] This they call the *Ihram*, or *Sacred habit*, conſiſting of two woollen wrappers, one for the head, the other for the private parts. They wear at the ſame time, a pair of narrow ſlippers, *Sale's Alcoran*, Prelim. Diſc. p. 119. [6] This well, which lies near the *Kaaba*, the *Mahometans* affirm to be the ſame, that *Hagar* ſaw in the wilderneſs, when ſhe was driven out, with her ſon *Iſhmael*, from the preſence of *Sarah*, Gen. xxi. 19. [7] Here each perſon performs a ſacrifice, in commemoration of that which *Abraham* offered inſtead of his ſon *Iſhmael* (and not *Iſaac*) according to their tradition. *Arafat* alſo is ſuppoſed to be the High-Land, or the land of *Moriah*, where *Abraham* was to offer up his ſon, *Gen.* xxii. 1, 2.

VIII.

Meſure de la grande Pyramide de Memphis. Vid. p. 379.

CETTE Pyramide eſt orientée aux 4 parties du Mond, Eſt, Oueſt, Nord, Sud.

L'entrée eſt du coté du Nord.

La porte n'eſt tout à fait au milieu, le cote Oueſt etant plus long que celui de l'Eſt, d'environ 30 pieds.

La porte eſt elevée 45 pieds au deſſus du terrain.

Hauteur perpendiculaire de la Piramide, 500 pieds.

Longeur des Cotez 670 pieds.

1er. Canal d'entrée, qui va en deſcendant, 3 pieds, 6 pouces, en quaree.

Longueur du dit Canal, 84 pieds.

Pente du dit 35 degrees.

Le Canal eſt terminé par la ſable, qu'il faut netoyer pour entrer à gauche ; en entrant eſt une eſpace devoute, rompue d'environ trois toiſes de diametre, pour donner communication au Canal montant.

2*de* Canal, qui va en montant, et tire Sud comme le premier Canal deſcendant, et autrefois ils s'embouchoient l'une à l'autre.

Longueur du dit Canal 96 pieds.

Largeur et Hauteur 3 pieds, 6 pouces en quarrée.

Au bout du Canal montant eſt à droite un puits ſec creusé en partie dans le Roc d'environ 27 toiſes de profondeur, composé de 4 boyaux, un droit, un oblique, au bout du quel eſt un repoiſoir, et encore un droit et puis un oblique, qui aboutit a du ſable.

Au bout du meme Canal montant eſt une plateforme, ſa longueur 12 pieds, largeur 3 pieds, 4 pouces. Cette plateforme s'unit à un 3*me* Canal de niveau.

Longuer du dit Canal 113 pieds.

Hauteur et Larguer 3.

Chambre d'en bas, Longuer 18 pieds.
Larguer 16.

Plateforme de la Chambre en dos d'âne chaque côté 10 pieds.

Hauteur des murs juſqu'au dos d'âne 11 pieds, 3 pouces.

Il y a un trou de 10 à 12 pac de profondeur dans la dite Chambre à gauche en entrant les pierres qu'on a tirez du trou ſont repandues dans la Chambre ; à l'entrée de ce trou paroit une Niche.

4*e*. Canal qui eſt auſſi montant, ſa voute preſq' en dos d'ane, Longueur 136 pieds. Larguer entre les mures 6 pieds et demi. Larguer de la tranchée entre les Banquettes 3 pieds et demi.

Les deux Banquettes chacune un pied et demi de large et de haut.

Mortaiſes dans les Banquettes chacune un pied 8 pouces de long, 5 ou 6 pouces de large.

Leur profondeur d'environ un demi pied. Diſtance d'une mortaiſe à l'autre 3 pieds et environ un tiers. Nombre de mortaiſes 56, c'eſt a dire 28 ſur chaque Banquette.

Hauteur de la voute du 4*e* Canal 22 pieds et demi eſt neuf Pierres, chacune de deux pieds $\frac{1}{2}$ de haut, ſomées d'un plancher de la larguer de tranche inferieure.

De 9 pierres de la voute 7 ſeulement ſont ſortantes, leur ſaillée eſt de 2 pouces $\frac{1}{2}$.

Au bout de 4*e*. Canal eſt un 5*e*. Canal de niveau, qui aboutit à une grande Chambre mortuaire. Longuer 21 pieds.—Larguer 3 pieds, 8 pouces.

Hauteur inegale, car vers le millieu il y a une eſpece d'Entreſole avec de Canalures, les deux tiers de ce 5*e*. Canal ſont revetu de marmor granit.

Grande Chambre ou Sale mortuaire, toute encruſtée de granit, pavé, plancher et murailles.—Longueur 32 pieds.—Larguer 16. Hauteur idem in 5 pierres egales. Plancher de 7 grandes pierres traverſent la Sale par la larguer, et deux pierres aux deux bouts, leſquelles entrent à moitie dans le mur.

Au

Au fonde de la Sale et à droit, à 4 pieds et 4 pouces de mur, eſt le Tombeau de Granit ſans couvercle, d'une ſeule pierre. Il reſonne comme une cloche. Hauteur de Tombeau 3 pieds et demi. Longueur 7. Larguer 3. Epaiſſeur demipied.

A droit du Tombeau dans le coin à terre on voit un trou long de trois pas, et profond d'environ 2 toiſes, fait apres coup.

Il y a deux trous à la muraille de la Sale proche de la Porte, l'un à droit, l'autre à gauche, d'environ deux pieds en quarée; on ne connoit pas leur longueur, ils ont eté fait en même tems que la Pyramide.

IX.

Remarques ſur le Natron.

LE *Natron* ou *Nitre* d'Egypte a eté connu des anciens; il eſt produit dans deux Lacs, dont Pline parle avec éloge; il les place entre les villes de *Naucrate* et de *Memphis*. Strabon poſe ces deux Lacs Nitrieux dans la Préfecture *Nitriotique*, proche les Villes de *Hermopolis* et *Momemphis*, vers les Canaux, qui coule dans la *Marcote*: toutes ces autorités ſe confirment par la ſituation preſente des deux Lacs de *Natron*. L'un des deux Lacs Nitrieux, nommé le grand Lac, occupe un terrain de quatre ou cinq lieuës de long, ſur une lieuë de large dans le deſert de *Scété* ou *Nitrie*; il n'eſt pas eloigné des monaſtéres de Saint Macaire, de Nôtre Dame de Suriens et des Grecs; et il n'eſt qu'à une grande journée à l'Oüeſt du Nil et à deux de *Memphis* vers le Caire, et autant de *Naucrate* vers Alexandrie et la Mer.

L'autre Lac nommé en Arabe Nehilé, a trois lieües de long, ſur une et demie de large; il s'etend au pied de la montagne à l'Oüeſt et à douze ou quinze mille de l'ancienne *Hermopolis parva*, aujourd'hui *Damanchour*, Capitale de la Province *Beheiré*, autrefois *Nitriotique*, aſſez pres de la Mareote, et à une journé d'*Alexandrie*.

Dans ces deux Lacs le *Natron* eſt couvert d'un pied ou deux d'eau; il s'enfonce en terre juſqu' à quatre ou cinq pieds de profondeur; on le coupe avec de longues barres de fer pointuës par le bas; ce qu'on a coupé eſt remplacé l'année ſuivante, ou quelques années aprés, par un nouveau Sel *Nitre*, qui ſort du ſein de la terre. Pour entretenir ſa fecondité, les Arabes ont ſoin de remplir les places vuides de matieres étrangeres, telles qu' elles ſoient, ſable, boüe, oſſemens, cadavres d'animaux, chameaux, chevaux, ânes et autres; toutes ces matieres ſont propres à ſe réduire, et ſe reduiſent en effet en vrai *Nitre*, de ſorte que les travailleurs revenant un ou deux ans après dans les mêmes quartiers, qu'ils avoient épuisés, y trouvent nouvelle recolte à recueillir.

Pline ſe trompe, quand il aſſure que le *Nil* agit dans les ſalines du *Natron*, comme le Mer dans celles du ſel, c'eſt à dire, que la Production du *Natron* dépend de l'eau douce, qui inonde ces Lacs; point du tout, les deux Lacs ſont innacceſſible par leur ſituation haute et ſupérieure aux aux inondations du Fleuve. Il eſt sûr pourtant, que la pluye, la roſée, la bruine et les brouillards ſont les veritables peres du *Natron*, qu'ils en hâtent la formation dans le ſein de la terre, qu'ils le multiplient et le rendent rouge; cette couleur eſt le meilleure de toutes, on en voit auſſi du blanc, du jaune, et du noir. ***

Outre le *Nitron*, on recueille dans certains quartiers des deux Lacs, du Sel ordinaire et fort blanc; où y trouve auſſi du Sel gemme, qui vient en petits morceaux d'une figure Piramidale, c'eſt-a-dire quarrée par le bas, et finiſſant en pointe. Ce dernier Sel ne paroît qu' au Printems.

Upon making experiments with the *Natron*, e find it to be an *alkali*, and to occaſion a ſtrong fermentation with acids,

acids; which will very well illuſtrate *Prov.* xxv. 20. where *the ſinging to a heavy heart* is finely compared to the contrariety, or colluctation there is betwixt *vinegar* נתר *Natron*; not *Nitre*, or *Salt-petre*, as we render it; which, being an acid, eaſily mixes with vinegar.

X.

The Method of making Sal Armoniac in Egypt.

SAL Armoniac is made of dung, of which camel's is eſteemed the ſtrongeſt and beſt. The little boys and girls run about the ſtreets of *Kairo*, with baſkets in their hands, picking up the dung, which they carry and ſell to the keepers of the bagnios; or, if they keep it for their own burning, they afterwards ſell the ſoot at the place where the *Sal Armoniac* is made. Alſo the villages round about *Kairo*, where they burn little elſe than dung, bring in their quota; but the beſt is gathered from the bagnios, where it cruſts upon the wall about half a finger's breadth. They mix it all together, and put it into large globular glaſſes, about the ſize of a peck, having a ſmall vent like the neck of a bottle, but ſhorter. Theſe glaſſes are thin as a a wafer, but are ſtrengthened by a treble coat of dirt, the mouths of them being luted with a piece of wet cotton. They are placed over the furnace in a thick bed of aſhes, nothing but the neck appearing, and kept there two days and a night with a continual ſtrong fire. The ſteam ſwells up the cotton, and forms a paſte at the vent-hole, hindering thereby the ſalts from evaporating, which, being confined, ſtick to the top of the bottle, and are, upon breaking it, taken out in thoſe large cakes, which they ſend to *England*.

XI.

An account of the Weather at Alexandria in Egypt, in the months of January and February, A. D. 1639.

JAN. 1. Faire, the wind little, and ſoutherly.

2. Faire.

3. Faire, at night it rained a little.

4. Clowdy and rainy in the afternoon, and at night.

5. Clowdy, rainy and windy, N. W.

☉ 6. Very rainy and windy, N. W. day and all night.

7. Rainy and windy, N. W. all day and night.

8. Rainy in the morning, very windy all day and night, at the latter end of the night very rainy, the wind was N. W.

9. The morning very rainy and windy, at night very rainy and windy. N. W.

10. All day very rainy and windy. N. W. The rain falls in ſudden guſts, afterwards a little fair, then again clowdy and rainy. At night it rained very much, and in the morning ſnowed.

11. Friday, it rained, the afternoon fair, at night rainy. N. W.

12. Saturday in the morning rainy, the afternoon fair, and at Night little wind.

13. Sunday faire, a little wind. N. N. W.

14. Monday little wind S. E. faire.

15. Faire, little wind. S. E. the air full of vapours, ſo that although no Clowds, yet the body of the ſun ſhined not bright.

16. Faire, little wind. S. E.

17. Faire, little wind. S. E. Theſe four days, eſpecially the two laſt, though no clouds, yet a caligo all day and night, ſo that the ſun gave but a weak ſhadow, and the ſtars little light. This caligo or hazy weather aroſe partly from the rains that fell before, and partly from the uſual overflowing of Nilus.

18. Friday like Thurſday, or rather worſe, the E. S. E. wind being great.

19. Saturday like Friday.

20. Sunday the wind N. and cloudy, night faire.

21. Monday the wind N. W. faire.

22. Tueſday faire, the wind N. W. it rained a little towards night, the wind —

23. Wedneſday fair, day and night, the wind N. W. The wind ſomewhat great.

24. Cloudy, at night it rained much. N. W.

25. Sometimes faire, ſometimes cloudy. N. W. about 4 P. M. it rained, ſo likewiſe at night very much.

26. Saturday very windy. N. W. and often rainy.

27. ☉ In the day very windy. N. W. ſometimes rainy, at night faire; no great wind but full of vapours; ſo that the pole-ſtar, nor the yards could be clearly ſeen.

28. In the day a duſky ſky all over, yet not many clouds, the ſun could not be ſeen, ſo at night, in the night it rained a little, the wind eaſt.

29. The ſky full of vapours, but not ſo obſcure as the 28. a quarter of an hour before ſun ſet, the ſun being immerſt in the vapours, about the horizon ſeemed for a while like burning iron, or like the moon, as I have ſeen ſometimes in an eclipſe, as ſhe grew low or half, more or leſs appeared, and ſo by degrees, till the upper edge, at laſt ſhe was quite loſt, though not below the horizon. This may ſomething ſerve to ſhew the manner of theſe vapours above 4 P. M. the N. N. W. begun to blow, all night faire.

30. Faire, N. N. W.

31. Faire, ſo till 10 at night, then it grew duſky from ſtore of vapours by the eaſt wind.

Febr. 1. Clowdy at night, faire, ſometimes clowdy, a very great N. W. wind and ſome rain.

2. Clowdy, faire, rainy, N. N. W. wind greate, Saturday at night....

3. ☉ Very windy. N. N. W. often rainy day and night, very cold.

4. Monday very windy N. N. W. day and night, often rainy, very cold.

5. Tueſday very windy and clowdy.

6. Wedneſday little wind N. at night obſcure.

7. Thurſday obſcure and duſky, little wind.

8. Faire, little wind, at night the wind northerly, and it rained much.

9. Saturday morning rainy, afternoon fair, wind E. at night.

10. Very faire day and night, wind N.

11. Faire, rainy. N. W.

12. Faire day and night.

13. } Very faire. } little wind
14. } } northerly.
15. } }
16. } }

17. I ſaw 2 ſpots in the ſun.

18. I went to *Cairo*.

19. Very faire.

20. Faire and obſcure.

21. Obſcure, at night it rained much; being at *Shimoone*, a great village, ſome 50 miles from *Cairo*, on the outſide of the river for fear of rogues; and there I ſaw boats of leather, and 2 men ſailing upon 225 pots.

An Account of the ſame, A. D. 1633.

The merid. altitude of the ſunne taken by my braſſe quadrant of 7 feet, and ſometimes by the braſſe ſextans of 4 feet, without reſpect to refraction or parallax.

Decem. 3d. Having well rectified my inſtruments. Quadr. 35 208

4. St. Vet. Tueſday the obſervat. very good { Quadr. 35 300 / Sext. 35 191 } 52

5. Obſervat. good. { Quadr. 35 100 / Sext. 35 177 } 47

6. Obſervat. good. { Quadr. 35 100 / Sext. 35 163 } 43

7. Obſ. good. 23. 27. | 35. 30. | 1/3 1/3 { Quadr. 35 100 / Sext. 35 151 } 41

8. (3 or 4 days paſt it was windy) Qu. 35 100 142

9. Clowdy.

10. Clowdy, at night windy and rainy. Qu. 35 124

11. It was windy, clowdy and rainy, I obſ. well in the breaking up of a clowd.

12. Clowdy and rainy.

13. Clowdy.

14. Very windy, in the morning it rained much. Qu. 35. 136

15. Clowdy.

16. Sunday the obſervation good, it was very clear and no wind. Qu. 35. 1/2

17. Clowdy and windy.

18. Tueſday no wind, the obſ. good. Qu. 35. 128.

19. The obſ. good, no wind, no clowdes.

20. 21. 22. } Clowdy or rainy theſe 3 days.

23. The obſ. good, at 3 o'clock, and in the night it rained much, the wind weſterly. Qu. 35. 285

24. 25. 26. 27. 28. 29. It rained exceedingly day and night, with great winds from the W. N. W.

The obſervations which were hitherto made of the ſunne by the braſſe quadrant, were by taking of the ſhadow on the top of the ruler by the other ſight or top at the end. Theſe which follow, were taken by letting the ſhadow of the cylindar fall upon one of the faces, which is thus marked Π.

Dec. 31. St. Vet. Qu. 36. 265 the wind northerly, the obſ. good.

Jan. 2. St. Vet. Qu. 37. 73

3. St. Vet. Qu. 37. 300 126

4. St. Vet. (58. 55.) Qu. 37. 165

Jan. 25. St. Vet. the quadrant with the rular, the cylindar being broken, the obſ. good. N. W. Qu. 42. 206

Jan. 26. Clowdy. Qu. 43. 300

27. Sund. obſ. good N. W. Qu. 43. 85.

28. Obſcure. Wind E.

XII.

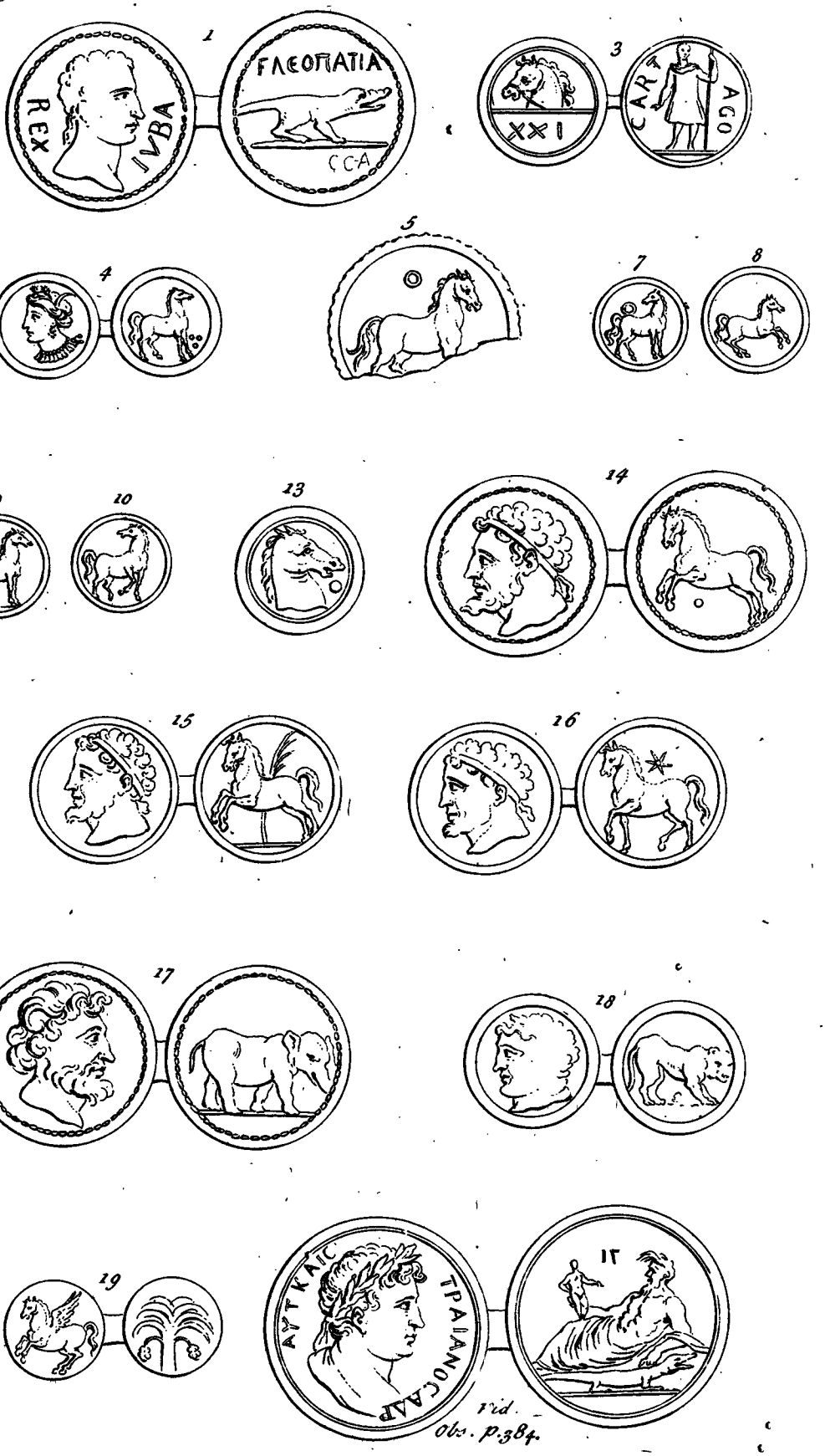
Nummi nonnulli ab auctore in Africa collecti, quique in ea regione cuſi fuiſſe videntur.

1. REX IVBA [1]. Caput Jubæ, diadematum. ΚΛΕΟΠΑΤΡΑ [2] ΒΑΣΙΛΙΣΣΑ. Crocodilus [3].

2. D. N. IVSTINIANVS P. P. AVG [4]. Caput Juſtiniani diadematum.

[1] Juba, quem exhibet hic nummus, ſecundus fuit iſtius nominis, qui uxorem duxit Cleopatram [2], cognomine Selenen, Antonii triumviri et Cleopatræ Ægypti reginæ filiam. Filium habuit Ptolemæum, regum Numidarum ultimum, qui a Caligula interfectus fuit. Porrò Juba hic noſter fuit Jubæ I. filius, Hiempſalis nepos, Gaudæ pronepos, Maſiniſæ pronepotis nepos.

To face p. 483.



Vid. Obs. p. 384.

3. KARTAGO, *in epigraphe.*
Miles ſtat, ſiniſtra haſtam tenens.
Caput Equi, decurſorii: *et in* Exerg. XXI.

Nummi ſequentes nec una nec altera parte inſcripti ſunt: quorum decem priores exhibent,

4. Caput Cereris, ornatum [6] ſpicis; interdum etiam cornu bubulo [7]; et inauribus.
Equum [8] ſtantem, cum cervice erecto.
Ad pedem tria puncta, forma triangulari poſita.

5. AL. Equum ſtantem, cum annulo.

6. AL. Equum ſtantem, cervice reflexo.

7. AL. Equum ſtantem, cervice reflexo cum Lunula [9].

8. AL. Equum currentem.

9. AL. Equum ſtantem cum Palma [10].

10. AL. Equum deſultorium, cervice reflexo, pedem dextrum elevantem.

11. AL. Equum, cervice reflexo, pedem dextrum elevantem.

12. AL. Caput Equi [11].

13. AL. Caput Equi, cum unciæ notâ.

Ita enim ſe habet ſeries illa regum Numidarum, quam in R. Reineccio (de Famil. Tab. 43. p. 329.) interruptam videmus, ut fidem facit inſcriptio hæc ſequens antiqua, quam in arce Carthaginis Novæ apud Hiſpaniam invenit mecumque communicavit V. R. Pa. Ximenes.

REGI IVBAE REGIS
IVBAE FILIO REGIS
IEMPSALIS N. REGIS GAVD.
PRONEPOTIS MASINISAE
PRONEPOTIS NEPOTI
II VIR QVIINQ. PATRONO
COLONI.

[3] Crocodilus, utpote Niloticum animal, ſymbolum fuit Ægypti, unde Cleopatra duxit originem. [4] Nummus hic deſcribitur a Mediobarba de Imp. Rom. Numiſm p. 564. Ed. *Milan.* 1683. [5] Beliſarius forſan, qui, devicto Gillimere, Carthaginem imperio Romano reſtituit. Numerus XXI, et Num. XIV. in priori nummo, annos Regni Juſtiniani deſignant, *viz.* A.D. 547. 540. Vid. Mediobarb. ut ſupra. [6] Ceres enim πολύσταχυς dicitur; unde Horatius Carm. Secul.

- - - - ſpicea donat
Cererem corona.

Quæque etiam Dea frugifera eſt, ideoque ſæpius cernitur in nummis Africæ, Siciliæ, Ægypti, aliarumque regionum, quæ olim, propter tritici et frumenti bertatem, celeberrimæ fuerunt. [7] Ceres etiam, quæ eadem cum Iſide eſt, bovinis cornibus pingitur. Ita enim Herodotus, Eut. §. 41. Τὸ γὰρ τῆς Ισιδος ἄγαλμα ἰὸν γυναικήιον, ΒΟΥΚΕΡΩΝ ἐστι. καλέπερ Ελληνες τὴν Ιουν γεγάφουσι. Vid. Obſ. p. 354. [8] Equus, utpote animal potens et bellicoſum, a Lybibus forſan imprimis domitum, inſigne fuit Mauritaniæ, Numidiæ, et Carthaginienſium regionis. Numidæ enim ab antiquiſſimis temporibus, ob equitationem et in equis educandis ſolertiam, palmam cæteris gentibus præripuerunt. Puncta forte pondus vel valorem indicant; ut annulus in ſequenti. Vel ſi nummus in una aut altera Carthaginienſium colonia, apud Siciliam, *i. e.* Trinacriam, cuſus fuit, per puncta totidem iſtius inſulæ promontoria denotari poſſint. [9] Lunula ſive creſcens ſymbolum fuit Iſidis, *i. e.* Cereris, Deæ frugiferæ. Vid. Not. & Obſ. ut ſupra. [10] Africa, (præcipue interiores ejus partes,) æque dactylis abundat, ac Ægyptus, Idume, Babylon, &c. ideoque Palmam pro inſigni ſuo ſive ſymbolo æquo jure vendicare poſſit. Vid. Obſ. p. 65. 87. 126. [11]. Hoc ſymbolum referre poſſumus ad caput equi inventum in jactis Carthaginis fundamentis. *In primis fundamentis caput bubulum inventum eſt; quod auſpicium quidem fructuoſæ terræ, ſed laborioſæ, perpetuóque ſervæ urbis fuit, propter quod in alium locum urbs tranſlata. Ibi quoque equi caput repertum, bellicoſum potentemque populum futurum ſignificans, urbi auſpicatam ſedem dedit.* Juſt. l. xviii. 5. Sic etiam Virgilius Æn. i. 445.

Lucus in urbe fuit media, lætiſſimus umbra;
Quo primum jactati undis et turbine Pœni
Effodere loco ſignum, quod regia Juno
Monſtrarat, caput acris equi: ſic nam fore bello
Egregiam et facilem victu per ſecula gentem.

14. Caput diadematum, promiſſa barba.
[1] Equus currens, cum unciæ notâ. Cum ℏ vid. apud Collect. Com. Pembroch.

15. Caput diadematum, promiſſa barba, cincinnis in orbem tortis ſeu calamiſtratis.
Equus currens, cum Palmæ ramulo [2].

16. Idem: quod Jubæ majoris, ob vultus ſimilitudinem, eſſe videtur.
Equus gradiens, cum ſtella [3].

17. Caput Jovis Ammonis [4].
Elephas [5].

18. Caput Herculis [6], pelle leonino amictum.
Leo gradiens [7].

19. Palma, cum dactylis.
Pegaſus [8].

20. AL. Equus ſtans, cervice erecto.

Ex ære omnes, præter quartum et quintum, quorum hic ex argento, alter ex auro conficitur.

[1] Nummus hic forſan reſpicit duos fratres, aut cognatos, vel patrem et filium, qui in imperio fuerant ſocii, ut ſæpius contingebat apud Numidas, Romanos, aliaſque gentes. [2] Palmæ ramulus vel victoriam quandam ab inimico portatam, vel Jubam minorem (modo nummus hic Jubæ ſenioris eſt) deſignare poteſt: Artemidorus quippe auctor eſt (*Oneir.* l. i. cap. lxxix,) *Principum liberos per ramos Palmarum deſignari.* Unde certe haud male collegiſſe videtur Triſtanus, ſignatos in quodam Conſtantii nummo tres Palmæ ramos denotare tres magni Conſtantini filios. Spanh. De Uſu &c. Numiſm. Diſſ. vi. p. 336. [3] Per ſtellam, virtus forſan ſolis in frugibus producendis viribuſque prolificis et bellicoſis equis addendis denotetur. Quidni etiam Heſperus eſſe poſſit? Ut enim hæc paſtoris ſtella eſt, Numidis certe, utpote vitam paſtoralem agentibus, ſemper grata eſſet et veneranda. Stella, in quodam Battiadorum nummo, Apollinem denotabat in eo tractu Sacerdotem, ſecundum Begerum (Theſ. Brand. vol. I. p. 518.) vel regem e Ludis equeſtribus victorem revertentem, ſtella ſeu ſole duce, ſecundum Spanhemium, Diſſ. vi. p. 300. [4] In Libya, templum et oraculum celeberrimum, olim Jovi Ammoni conditum fuit: Ammoni illi nempe, qui idem eſſe perhibetur cum Chamo, cui Ægyptii et Libyes debent originem. [5] Tempore, quo cuſus fuit hic nummus, elephantes frequentes errabant in ſeptentrionalibus Africæ partibus, ut patet ex Plin. N. H. l. v. c. 1. Ita enim poeta, de Africa loquens:

Et vaſtos elephantas habet, fævoſque leones
In pœnas fœcunda ſuas parit horrida Telus. Manil. lib. iv.

[6] Hercules nempe Libycus, cujus fama, propter certamen cum Antæo, (Plin. N. H. l. v. c. 1.) Aram apud Lixon, (ibid. D.) Specus in promontorio Ampeluſia dicto (Pomp. Mela, c. v.) Columnaſque (ibid.) ſemper fuit inter Afros celeberrima. [7] Per leonem hic exhibitum, intelligi poteſt vel Africæ ſymbolum, quæ a poeta nuncupatur

Leonum
Arida nutrix.

vel Leo ab Hercule interfectus. [8] Nummus hic etiam inter Africanos numerandus eſt, licet altera parte pegaſum, Corinthiorum ſymbolum, exhibeat. Palma quippe hic expreſſa racemos ſuos profert propendentes, utpote dactylis onuſtos, quæ apud Corinthum, ob regionis frigiditatem, nulla alia eſſe poſſit quam ſterilis. Præterea, ut pegaſus nihil aliud ſit niſi *celer equus*, tale inſigne optime Africæ conveniet, ob celerum nempe equorum in ea terrarum parte proventum. Vid. Triſt. Comment. tom. I. p. 89. & Spanheim. Differt. v. p 277.

An Egyptian Censer of a beautiful Slate-like Stone, with the Handle, imitating the Leg of a Camel tied up in the manner used by the Arabs to this day, to prvent that Creature from straying. To face p. 485.

A Canopus of an almost transparent Alabaster, 17 Inches long and 6 in diameter, with the Head of His veiled. The Vessels carried in procession to denote the Divinity of Water, more probably made in this fashion.

Two smaller Canopuses, which with the larger one come from Sakara.

Two Egyptian Pendants.

To Richard Hollins Esq.
Sollicitor to His Royal Highness
FREDERICK Prince of WALES.

These Plates markt I, II, III, IV. *were designed by the Author to have been omitted in this Edition; but, as they will be esteemed of Importance by many, and an Ornament by all, it has been thought proper to insert them here, with the explanation of the three first, in the words of the author; as they followed, at Sect.* II. *p.* 377. *The fourth, which is* Peutinger's *Table, will be of use to the Learned, who shall compare it with the* ITINERARY, *as* Gerhard Vossius de Scient. Mathem. *advises, &* Fabricius Biblioth. Lat. *voce* Tabula, *and as this author has sometimes done, See p.* 95, 271. *& alibi.*

THE greatest part of the little images, that are sold in *Egypt*, are commonly reported to have been lodged in the breasts of mummies. What may favour this opinion is, that the people of *Sakara* are the chief venders of these antiquities at present; of whom, likewise, I purchased the vase C, which was probably an *Egyptian* censer, being of a beautiful slate-like stone, with the handle very artfully contrived to imitate the leg of a camel, tyed up in the same fashion the *Arabs* use to this day, to prevent those creatures from straying away. F F are two pendants of the like materials, and from the same place. Of this kind, perhaps, were the (λίθινα χυλὰ) stones, which they suspended upon the ears of their sacred crocodiles [1]. The *Canopus*, with two others [2], in the possession of Dr. *Mead* (now of Mr. *Walpole*) were likewise from *Sakara*. This of mine, which is of an almost transparent alabaster, is seventeen inches long, and six in diameter; having a scroll of sacred characters painted upon the breast, and the head of *Isis* veiled, for the *Operculum*. The vessels [3], that were carried about in their processions, either to denote the great blessing of water, or that water, the humid principle, was the beginning of all things, may be supposed to have been of this fashion, or rather, as the *Canopuses* usually are, somewhat more turgid. In the famous contest also, betwixt the *Chaldeans* and *Ægyptians*, concerning the strength and power of their respective deities, *Fire* and *Water*, the latter was personated by a *Canopus*; the story whereof is humorously told by *Suidas* [4]. Plate I.

The *Icunculæ* here represented, were intended, in all probability, to be so many of their *Lares* or *Amulets* [5]: whereof the first A is an *Egyptian* priest with his head shaven, and a scroll of *Hieroglyphicks* upon his knees. B, is *Osiris*, with his *Tutulus a*, *Flagellum b*, and hook *c*. C, is the same deity, (ἱερακόμορφος) with the hawk's head; having been formerly enameled upon the breast; and holding either a palm branch, or a feather; which seems, Plate II. III.

[1] Ἀξιόμαλά τε λίθινα χυλὰ (forsitan ἢ χρύσια εἰς τὰ ὦτα (τῶν κροκοδείλων) ἐνθέντες, &c. *Herod.* Eut. §. 69. [2] These are figured by Mr. *Gordon*, Tab. xviii. whereof the first is of baked earth, the other of alabaster. [3] Quintus auream vannum aureis congestam ramulis: et *alius ferebat Amphoram. Apul.* Met. l. ii. p. 262 [4] *Suid.* in voce Κάνωπος. [5] Inter amuleta *Ægyptia* nil erat communius *Harpocrate*, *Horo*, *Apide*, *Osiride* et *Isíde*, *Canopo*; quorum primus Cornucopia instructus sub forma pueri nudi digito silentia suadente conspiciebatur; alter ibidem sub forma pueri, sed fascibus, aut reticulato amictu involutus; tertius sub forma bovini capitis; quartus sub variis formis; nunc ἱερακόμορφος, nunc κυνόμορφος, modo leoniformis; quinta sub mulieris habitu, scuticâ et reti instructa, aliisque instrumentis. Per *Harpocratis* amuletum, arcanorum per varias divinationum species se conscios futuros sperabant, religiose gestatum: gestatum autem fuisse, *ansulæ* satis demonstrant. Per *Hori* amuletum naturæ mundanæ notitiam se habituros putabant; per *Apidis* amuletum, fœcunditatem; per *Osiridis* influxus superni abundantiam; per *Isidis*, quæ ad terram et Nilum pertinent, bonorum omnium temporalium ubertatem se consecuturos sperabant. Per *Accipitrem*, se consecuturos sperabant claritatem luminis tum oculorum, tum intellectûs; per *Bovem*, domesticæ substantiæ amplitudinem; per *Canem* scientiarum et artium notitiam; per *Cynocephalum* et *Ælurum* lunaris numinis attractum. Erat ex insectis quoque *Scarabæus*, certis et appropriatis lapidibus incisus, potentissimum amuletum et passim usurpatum, ad solaris numinis attractum, contra omnes tum corporis, tum animi morbos institutum. *Kirch.* Gymn. Hierogl. Clas. xi. p. 447-8.

likewise,

likewiſe, to have been enammelled. D, is the horned *Iſis*, or Ισις μηνοειδης. In her lap ſhe carries her ſon *Orus*, E; the ſame with F, the *Sigalion*, or God of *Silence*, who is accordingly ſeen with his finger upon his mouth, and known by the name of *Harpocrates*. G, is another figure alſo of *Harpocrates*, in the ſame ſitting poſture, that is uſed to this day, by the eaſtern nations. H, is ſuppoſed to be *Orus*[1], (*i. e.* the earth,) turgid with the variety of things, which it is ready to produce. I, (provided the turn of the body, and the *Pileus* do not ſuppoſe it to have originally belonged to ſome other nation, and worſhip) may, perhaps, from its poſture, be the *Egyptian Crepitus*: as, among others of a leſſer ſize, K, is the *Anubis*; L, M, the *Apis*; N, the cat; O, the *Cynocephalus*; P, the hawk; Q, R, the frog; S, the beetle; T, the *Phallus Oculatus*[2]; U, a *Niloſcope*; X, a *Pyramid*; and Y, a *Plectrum*.

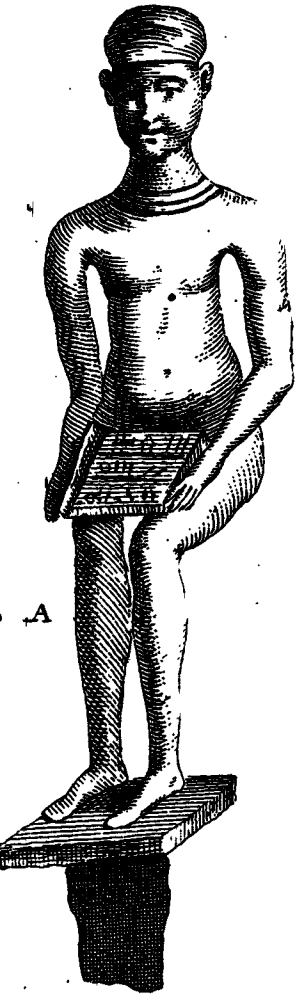
Plate III.

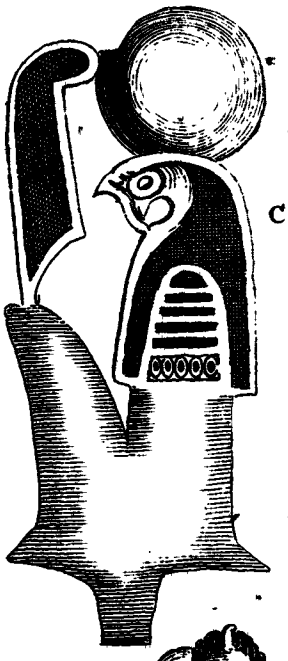
Plate II.

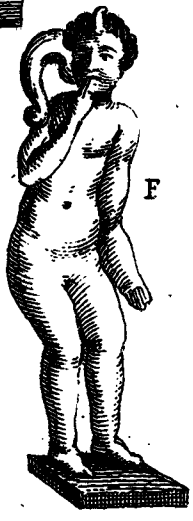
Of theſe *Icunculæ*, the laſt is of alabaſter; Q, is of brown marble, ſpotted with yellow; A, B, C, D, E, F, G, I, K, L, M, N, P, R, are of copper, and the reſt of baked earth. All of them, except A, G, I, O, P, R, are either bored through, or elſe have little rings fixed to them, whereby we may conjecture, that they were ſuſpended upon the necks of their votaries. Yet, the ſpindles, or pivots, *a*, *a*, *a*, *a*, of the images, A, B, C, D, may give us room to ſuſpect, that they, in particular, were either to be erected, in ſome convenient place of their houſes, as objects of their worſhip, or elſe, that they were to be fixed upon their ſymbolical rods and ſceptres, and carried about in that manner, in their ſolemn proceſſions.

[1] *Horus* ſemper ſub puerili forma referebatur, et myſticè, *Plutarcho* teſte, nihil aliud eſt, quam ſenſibilis mundi machina, quam ſol ſeu *Oſiris* per *Scarabæum* (κ) indicatus, continua ſolarium numinum per binos *accipitres* (λ) et terreſtrium geniorum, per *Penates* (μ) lateribus aſſiſtentes indicatorum, miniſterio, ſumma ſapientia gubernat et moderatur. Pueri forma pingitur, quia mundus generabilium rerum innovatione continuo veluti rejuveneſcit: tumido corpore (ν) pingitur, quia genitalium rerum fœtura et παγκαρπία perpetuo turget: ſub utroque pede crocodilum (ξ) calcat, i. e. Beboniam ſeu typhoniam malignitatem mundo adeo perniciоſam, ne invaleſcat, cohibet; ſcuticaque (ο) i. e. virtutis ſuæ efficacia in officio continet. In poſtica parte per figuram Δ, *Iſis*, ſeu luna exprimitur, quod cornua et velum, quibus ſemper, exhibetur, oſtendunt; ubere turget, quia mater omnium inventionum eſt, et *Hori* a *Typhone* extincti vindicatrix et reſuſcitatrix; dum mundum ficcitate et aduſtiva quadam vi oppreſſum, humido ſuo influxu, per radios apte indicato, temperiem et vitam revocat. *Kirch.* ibid. p. 419. [2] Nec *Serapidem* magis quam *Strepitus*, per pudenda corporis expreſſos, contremiſcunt (*Ægyptii*) *Minut.* Felix. §. 28. Crepitus ventris inflati, quæ *Pelufiaca* religio eſt. S. *Hieron.* in *Iſai.* lib. xiii. cap. xlvi. [3] *Oſirin* per brachium extenſum, beneficentiæ et liberalitatis notam, multis locis oſtendimus; atque adeo *Phallus* hic *oculatus* [cum brachio occulte ex eo emergente] nihil aliud innuit, quam providentiam beneficam divini *Oſiridis*, in fœcunda generatione elucеſcentem; quâ occultâ et inſenſibili operatione omnia fœcundat, eratque potiſſimum apud Ægyptios amuletum, &c. *Kirch. OEdip. Ægypt.* Synt. xiii. p. 415.

To face p. 486.







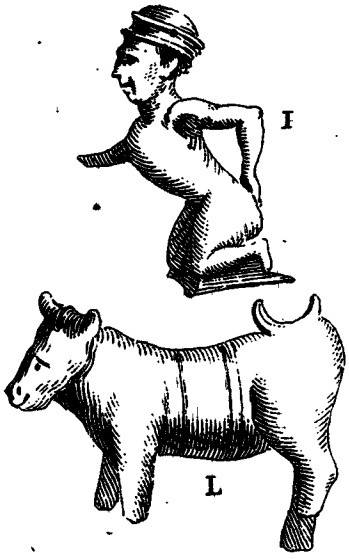
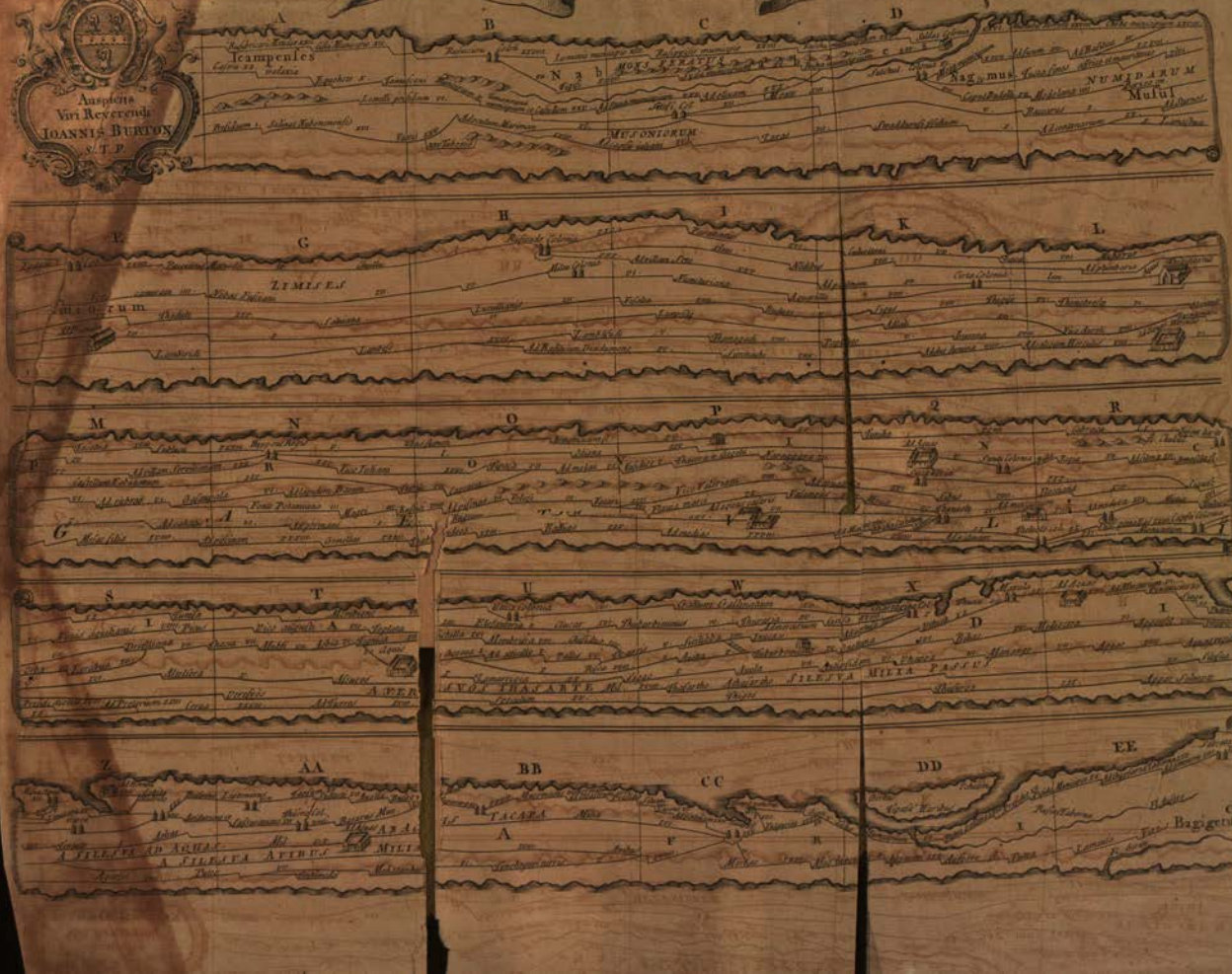


Plate III.

To face pa. 486.

Plate IV.

TABULA ITINERARIA PEUTINGERIANA



As nothing has been ſaid in this edition of the CHRYSANTHINE MAN, *inſerted p.* 301; *we ſhall ſubjoin the* ACCOUNT *of it in the author's words, as they ſtood in the former edition.*

THE Revd. and ingenious Mr. *Coſtard*, obliged me with a ſight of the *Chryſanthine* map, as it has been called, of *Egypt*, which is projected in a large ſcale, with the names of places, in *Greek* and *Arabick*. In this, the *Tiah beni Iſrael*, (*Trav.* p. 309.) which is, likewiſe, the name in *Albufeda*, is *Terick beni Iſrael*, words of the ſame force: which *Tiah*, or *Terick*, lies all the way in this map, through two ranges of mountains, from Ραμεσσης (corruptly given for Ραμεσσης or Ραμεσσης, *Exod.* xii. 37. *Numb.* xxxiii. 3.) to the *Red-ſea*. The author of *The Deſcription of the Eaſt*, as far, at leaſt, as I underſtand his *librorum deſcriptiones* &c. gives little credit to this map. *Hæc charta* (ſays he, *Diſſert. Geogr.* p. 286.) *deſcripta eſt ſignis tam Arabicis quam Græcis, in uſum (ut titulus præ ſe fert) Chryſanthi Patriarchæ Hieroſolymitani, anno Domini* 1722. *Delineator (quiſquis fuerit ille) videtur ſe totum compoſuiſſe ad librorum deſcriptiones, non oculorum fidem in locis perluſtrandis acutus: inde adeo cautius illius veſtigiis inhærendum cenſui.* Whereas, I muſt beg leave to differ from this gentleman, in taking it to be a valuable chart, and which deſerves well to be publiſhed. Neither does it appear from the title, as is here pretended, that it was of no older date than 1722. becauſe ΠΕΡΙΓΡΑΦΗ ΑΙΓΥΠΤΟΥ &c. ΠΡΟΣΦΕΡΟΜΕΝΗ ΤΩ &c. ΧΡΥΣΑΝΘΩ &c. as the title runs, may denote nothing more than that this particular copy (not the original) was (προσφερομένη) offered, or (in our ſtyle) dedicated, to, and not properly made for *Chryſanthus*, &c. in ſuch a year. ☞ I have inſerted an extract from this, No. III. (in a much ſmaller ſcale) as far as it relates to this controverſy.

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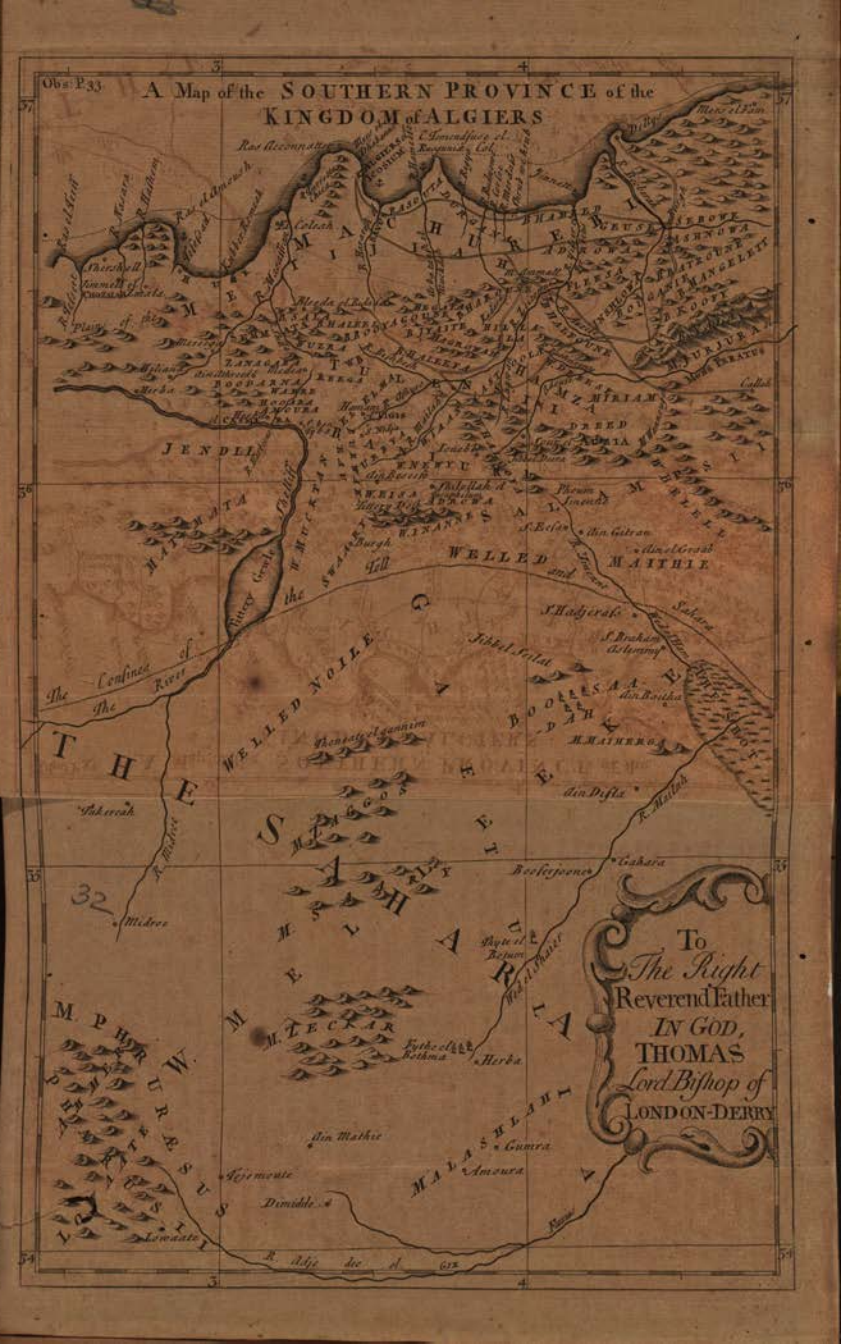
A Map of the SOUTHERN PROVINCE of the KINGDOM of ALGIERS



A MAP OF THE EASTERN PROVINCE OF THE KINGDOM OF ALGIERS

A MAP of the KINGDOM of TUNIS

Obs. P. 71

To
the Right Honourable
S. ROBERT WALPOLE
Chancellor of the Exchequer
Knight of the most Noble
Order of the Garter
And One of the Majesties
most Honourable
Privy Council

GULF of HAMAMETT

THE MEDITERRANEAN SEA

THE LESSER SYRTIS

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